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REFERENCE

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ARTICLE VIII.—No member or holder of second class stock, whose annual contribution for the current year shall be unpaid or who is in arrears for fines, shall be entitled to the privileges of the Library or Reading Room.

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IRVING K. POND, Des.

TITLE PAGE IN USE FROM MARCH, 1892.
Yearly Subscription Price $5.00; Photogravure Edition, $10.00

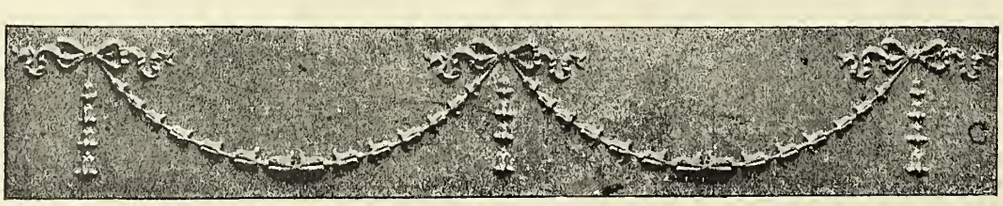
LORADO TAFT, Sculp.

younger draftsmen, one which they were not slow to follow, and for several years the best drawings offered for publication had the mark of Lautrup's influence. It soon became apparent that an architectural and building journal was really two journals in one, and the fields so diverse, that one had to be abandoned. Thus it was that the word "builder" was dropped and Lautrup again called upon to assist in correcting our title. Taking the news feature of the journal, which has always been a department managed with care and thoroughness, the NEWS RECORD was added and still remains a part of the title, indicative of a fixed policy—that of giving all the architectural news of general importance as fully as is consistent with good journalism.

A year ago it appeared necessary to make another change in the title page of THE INLAND ARCHITECT, consistent with the advance in process reproduction and the art of designing. This took a form entirely new to the field of title pages for journals or magazines. Architect Irving K. Pond was asked to design, and Lorado Taft, the Sculptor, to model in clay, a title page that would be artistic and appropriate. How successful these artists were, the cover of THE INLAND ARCHITECT for the past year has shown. A photograph was made from the clay model and this reproduced by the half-tone process. It remained for the printer and a judicious selection of ink and paper to accomplish the production of this unique conception. But it is not in the illustrative line alone that the ten years of publication has developed taste or been useful to the profession. Through its agency the Western Association was not only organized, but its work given publicity to, and the profession in different states aided in organizing and carrying on their local organizations. Through it the first official report of the National Association of Builders was made, and last, but not least, the first draft of the Stockslager bill, for the reorganization of the office of Supervising Architect, from which all others have descended, was framed directly upon the lines proposed by this journal months before the bill was issued and placed before the people. Its columns and illustrative pages have noted the development of the office building, and not only the increase in height, from eight stories to twenty, but the institution of a new system of foundations and superstructure construction never before practiced. Through close attention to the proceedings of Architectural Societies and an extensive acquaintance with the individual members of the profession, THE INLAND ARCHITECT has always been able to publish news as correct as though it were official.

Since the inception of the World's Columbian Exposition it has not only kept in touch with every movement connected with the design and construction of the buildings, but was first to oppose any and every competition scheme that was offered, and to advocate and press the selection of a corps of architects from among the most notable in the United States, upon terms and with such freedom of action as would insure their acceptance of the work and engage their best efforts. Beginning with the first designs received from the architects selected, throughout the designing of these buildings THE INLAND ARCHITECT was intrusted with the original drawings, from which the plates were made for its pages and proofs supplied for general distribution. Through its efforts the best perspective draftsmen in the country were engaged and their drawings were published by the journals of the world. In this work, as in all other directions, THE INLAND ARCHITECT has been unselfish, though enterprising, and has followed a policy of independence, and still of liberality towards its co-laborers.

In thus noting a few of the important events that have marked the ten years through which THE INLAND ARCHITECT has advanced, it presents the conclusion that it is probable that no other period in history can show so many changes in method or improvement upon old forms as those of the past decade, and in thus calling attention to the humble part THE INLAND ARCHITECT has taken in recording the history of this great epoch, it is with a realization of its mission and an intention to still keep pace with the advancement in the art of architecture.



TEN YEARS' CHANGES.



TITLE IN USE FROM FEBRUARY, 1883, TO AUGUST 1883

Yearly Subscription Price, $1.00



TITLE IN USE FROM AUGUST, 1883, TO FEBRUARY, 1887.

Yearly Subscription Price, $1.75. Changed February, 1885 to $2.00, and February 1886, to $3.00



TITLE IN USE FROM FEBRUARY, 1887, TO MARCH, 1892.

Yearly Subscription Price $3.00; Photogravure Edition $8.00



RCHITECTURAL development, as art, in the West may be said to be contemporaneous with the growth of The Inland Architect. Simultaneous with its early issues came a renaissance that brought that which in its bizarre effects was in many instances worse than the commonplace forms that went before, but still lead to a higher and better plane of design than had been known to the country. The Inland Architect has for ten years spread the best of these designs before the profession and has, through the close adherence to the principle of selection, become a recognized exponent of contemporaneous American architecture. Aside from the pure matter of history involved in the retrospect of these ten years, which have passed since the first number of The Inland Architect was published, there is another history contemporary with it, and this is the history of process reproduction for publication purposes. Like the dry plate in photography, this is a comparatively new art, and while, like photography, its principles have been long known, its application has only been developed in a practical way during the past ten years.

Previous to about that period, the artist drew his picture upon a wooden block and the engraver worked certain lines upon the wood that he had been taught represented the effect sought for in the picture. Then by photography the artist's drawing was transferred to the block; but each process was laborious and the results lay with the engraver and not the artist. Seeking to overcome this, so that the artist should not be separated from his drawing and his work incorrectly reproduced, the present processes were introduced. Early in 1883 there was but one of these processes, that of photo-engraving by which line drawings in black ink were reproduced, to be found in Chicago. This was a process by which the drawing was photographed, a wax impression taken from a gelatine matrix (which is still the foundation for all the processes since used) and a plaster cast made, from which an electro was taken and printed from. The cost was five times that for the same character of work at the present time, and the publication day depended upon this single engraver to finish his work. The first drawing, published in our first number, was a perspective of the Calumet Club building, Chicago, made by Paul C. Lautrup, for Burnham & Root, for publication in the *American Architect*. The reproduction has never been surpassed since by other more recent processes.

About three years later, a German from Vienna introduced a process which consisted of etching out a photograph on copper or zinc with acids. This is the zinc etching of today and has superseded all other processes for reproducing line drawings. Almost simultaneous with this came the half-tone process, which is similar in method, but is used for reproducing photographs, the lines being produced by rephotographing through a mesh. Then came the "photo-gravure," a photo-gelatine process, the gelatine matrix being used direct to receive the ink and the prints usually made with a hand press.

Each of these reproductive processes was instantly taken advantage of by the publishers of The Inland Architect. The expense of the increase in the quality and quantity of the illustrations being added, the journal rapidly rose from a dollar-a-year to a ten-dollar-a-year monthly publication. In every period of its existence its publishers have sought to make it typographically perfect. Its first heading, drawn on the block and reproduced by a wood engraver, was only used six months when the possibilities of photo-engraving made a new and more architectural heading obtainable, and Paul C. Lautrup was called upon to design it. It might be said that Paul is also part of our history, for in those early days he was almost the only, as he certainly was the best, perspective artist in the West and his drawings, reproduced in these pages, gave not only an incentive, but a model to the

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Root, C. A. S. C. competition....Jan.

OFFICE BUILDINGS:
Architect J. K. Cady....Aug.
Architects Jenney & Mundie....Sept.

RAILWAY STATION:
Architect Bradford L. Gilbert....Aug.
Architect Clinton J. Warren....Aug.

RESIDENCES:
Architect S. S. Beman....Sept.
Architects Burnham & Root....Aug.
Architect J. K. Cady....Sept.
Architect W. J. East....Dec.
Architect Charles S. Frost....Dec.
Architect Elliot Lynch....Sept.
Architects Patton & Fisher....Aug.
Architect O. J. Pierce....Dec.
Architects Rapp & Aiken....Nov.
Architect F. R. Schock....Sept., Oct.
Architect George M. Siemens....Nov.

RESIDENCES (CONNECTED):
Architect George M. Siemens....Oct.

RESIDENCES (SUMMER):
Architect W. W. Boyington....Nov.
Architect E. A. Kent....Jan.
Architect Frederick W. Perkins....Oct.

SCHOOLS:
Architect J. J. Flanders....Jan.
Architect Charles E. Illsley....Nov.

SKETCHES:
French, J. F. Jackson, del....Nov.
Ghent and Inusbruck, E. B. Nolan, del..Sept.
Port D'Amont, J. F. Jackson, del....Oct.
Tyrolese, Lucien W. Plympton, del....Dec.

STABLE:
Architect Alfred Smith....Aug.

STORE BUILDING:
Architects Flanders & Zimmerman....Oct.

Y. M. C. A. BUILDING:
Architects Jenney & Mundie....Aug.

ILLUSTRATIONS (PHOTOGRAVURE)—

APARTMENT BUILDINGS:
Architect Henry Ives Cobb....Oct.
Architect S. S. Beman....Aug.
Architect Charles S. Frost....Aug.

BANK:
Architect C. F. Schweinfurth....Sept.

CARRIAGE WORKS:
Architects Mason & Rice....Jan.

CHURCH:
Architects Mason & Rice....Dec.

CLUB HOUSE:
Architects Beman & Parmentier....Oct.
Architects Holabird & Roche....Dec.

CONVENT:
Architects Curtin & Hutchings....Sept.

ENGINE HOUSE:
Architects Rogers & McFarland....Dec.

ENTRANCE (RESIDENCE):
Architect S. S. Beman....Jan.

FLATS:
Architect Francis M. Whitehouse....Nov.

HOTEL:
Architect Clinton J. Warren....Nov.

HOUSE:
Architects Holabird & Roche....Jan.

INSTITUTE:
Architects Knox & Eliot....Nov.

OFFICE BUILDING:
Architects Burnham & Root....Oct.

RESIDENCES:
At Rochester, N. Y....Nov.
Architect William Martin Aiken....Sept., Nov.
Architect S. S. Beman....Aug.
Architects Burling & Whitehouse....Aug.
Architect Henry Ives Cobb....Aug.
Architects A. M. F. Colton & Son....Sept.
Architects Des Jardins & Hayward....Sept.
Architect A. O. Elzner....Sept.
Architect Wilson Eyre....Dec.
Architects Flanders & Zimmerman..Aug., Oct.
Architect Charles S. Frost....Oct.
Architects Samuel Hannaford & Sons....Nov.
Architects Holabird & Roche....Jan.
Architects Jenney & Mundie....Sept.
Architect S. A. Jennings....Jan.
Architects Knox & Eliot....Nov.
Architects Mason & Rice....Dec., Jan.
Architects Maher & Corwin....Aug.
Architect J. W. McLaughlin....Oct.
Architect D. S. Pentecost....Oct.
Architect Frederick W. Perkins....Aug.
Architects Rogers & McFarland....Dec.
Architect C. Schweinfurth....Sept.
Architects John Scott & Co....Jan.
Architects Thomas & Rapp....Aug.
Architects Varren & Sterner....Sept.
Architect Francis M. Whitehouse....Dec.
Architects Beers, Clay & Dutton....Nov.

STORES & FLATS:
Architect Frederick W. Perkins....Jan.

UNIVERSITY HALLS:
Architect Henry Ives Cobb....Oct.

THE INLAND ARCHITECT AND NEWS RECORD

Vol. XIX. FEBRUARY, 1892. No. 1

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Death of a pioneer Iowa Architect.

On December 31, 1891, with the closing of the year, there died, at the age of 61 years, at Sioux City, Iowa, an architect who had much to do with the early building of the city, and who, for the past twenty years, has occupied an honorable place in the profession. Architect George G. Baldwin was well known as one of the pioneer architects of western Iowa. His father was a prominent builder in Connecticut, where he was born, and twenty years ago he removed west, and has since been closely associated with the growth of Sioux City. Many of the most important structures among the earlier buildings and, latterly, the First Congregational church, attest the honest and substantial character of his work. It is said of him that he abhorred shams, and that his voice was always raised against the deceits and tinsel character that too often appeared in the earlier architecture of the West. He was honest in his convictions, and never sought popularity at the expense of the truth, and in Mr. Baldwin the profession has lost one whose principle is well worthy of emulation.

Sixth Annual Convention N. A. B.

The sixth annual convention of the National Association of Builders, which met at Cleveland on January 18, was characterized by quiet and orderly proceedings. At the outset the harmony was somewhat marred by the withdrawal of the Pittsburgh delegation through the interpretation of the constitution by the committee on credentials which was subsequently supported by a majority vote of the convention. Their action was hasty and their subsequent withdrawal of their exchange from the National Association unwarranted and will probably be so decided by the local body. In viewing the general work of the exchanges during the year a notable feature is the general spread of the practice of submitting disputes to arbitration rather than appealing to the courts. Many cases were cited where arbitration at slight cost had made immediate settlement of disputes that would have cost thousands of dollars and probable years of delay. An entire day was given to the discussion of the report of the committee on lien laws, and while no conclusion was reached, the general ventilation of the subject and the knowledge of the special features of the laws operative in the different states which was exchanged will aid the local exchanges in future consideration of the subject. It is remarkable that, while builders' lien laws are supposedly for the benefit of builders, that in only two states out of thirty-five is the present law satisfactory. There was a strong feeling expressed by many delegates that there should be no lien law. It would seem that a lien law was not needed by an honest man and enabled a rogue to enter in competition against him. Many exchanges contemplate the erection of buildings of their own, and the general growth of all the exchanges indicates a healthy condition, and is a strong indorsement of the National Association. The report of Secretary Sayward was a remarkable production, and showed that a prodigious amount of labor had been performed by his office during the year. While the report of the committee on uniform contract was accepted without discussion, the effect of the contract was touched on in the secretary's report, and also in the discussion of other subjects. In general, the National Association of

Builders of the United States is not only to be congratulated upon its general growth and prosperity but upon the general benefit and influence it has upon building interests throughout the country, an influence that is now of inestimable value to every architect and builder and in the future will govern the largest source of expenditure of money and talent demanded by present civilization.

The Government Architecture Reorganization Bill.

Recently a circular letter was sent to every member of the Institute inclosing a copy of the Windrim draft of a bill for the reorganization of the government architectural office and calling attention to the duty of every architect in the United States, whether a member of the Institute or not, to urge upon their local congressman the great necessity for the passage of such a measure. The matter should be brought forward by the present congress, but no measure is liable to pass unless strongly endorsed by those directly interested in the sections represented by the members of congress. Each local Chapter should immediately appoint a committee to act, and, without delay, each individual should call upon or write to the member from his district, indorsing the passage of such a bill and urging him to take a personal interest in its passage. The local press should be seen and the objects of the bill clearly explained and favorable comment upon it secured. This is a duty no architect should neglect, who has his own interest, not to mention the general welfare of the profession and the future architecture of his country, at heart. A strong committee of representative members of the Institute will go to Washington to meet the proper committees of house and senate at the proper time, but its work will be useless without the combined influence of the individual members of the profession behind it giving their full support. For nine years this journal has advocated a change in the system, and at several periods we are convinced that the reform would have been adopted had the architects at large done their full duty in the matter of local agitation. The United States has so far outgrown the methods of the past that the time is ripe for a change to suit the new conditions, and it will take the direction outlined by the Institute if ably supported by the profession at large.

Pushing a License Bill in New York.

It seems more probable at the present time than ever before in the history of the movement toward securing a legal standing for the architectural profession that a bill will at last be passed and that by the most important state in the Union. The bill, which was placed before the legislature of the State of New York a year ago and failed in passage, has been revived and earnestly pushed by every architectural organization in the state. It has passed the house committee and the committee upon laws with little opposition, and unless unlooked for dissent appears when brought before the house will shortly beome a law. It is notable that only one person appeared before the committee upon general laws in opposition to the bill, and his argument was that "it was un-American." He had no argument to sustain his opinion, however, and received little notice from the committee. There were present before the committee architects representing the American Institute of Architects, the New York Architectural League, the New York Chapter, the Western New York State Chapter, the Buffalo Chapter, the Buffalo Architectural Sketch Club and the Columbia College School of Mines. The argument of the president of the Buffalo Architectural Sketch Club was especially notable and convincing as he stated that the class he represented were the architects of the future upon whom this law, if passed, would act, and his club were unanimous in its favor. The law as written does not go as far as the majority of architects would have it, but it is something for architects to even obtain the recognition which the mere discussion of such a measure signifies. What has been accomplished has only been by the most assiduous labor upon the part of a few of the architects of the state who have the future of the profession at heart. Architects to whom it signifies little whether such a law is passed or not, as far as their personal practice is concerned, but who believe their profession should be elevated above the level of a trade, and that the public has a right to be protected against unskillful practitioners—to these, whether their efforts are successful or not, the profession owes much ; and those who a few years ago could not, or perhaps even now do not see the good in associations, will remember that all the good that comes to them as a reflex from the efforts of such men as these who have pushed the bill in New York, comes through the architectural associations.

World's Congress of Architects Organized.

The World's Fair Congress Auxiliary, under the direction of President Charles C. Bonney, has been rapidly organizing committees in all lines of human effort. The committee on a world's congress of architects, consisting of D. H. Burnham, chairman, W. L. B. Jenney, vice-chairman, and S. S. Beman, is about to issue an address and invitation to the architects of the world to meet in congress at Chicago during the World's Fair. The meeting, which will take place some time in August, 1893, will probably be the largest and most representative body of architects the world has ever seen, and the higher plane of knowledge and artistic ambition reached by those in attendance through its influence will be found impressed upon the future architecture of the world. The auxiliary committee will have immediate charge of organization and programme, and will be aided by the advice and support of the committee on foreign correspondence, appointed for the purpose at the last meeting of the American Institute of Architects, consisting of Richard M. Hunt, chairman, C. F. McKim, Henry Van Brunt, D. Adler and W. L. B. Jenney. The plans of the committee are being rapidly formulated, and the address about to be issued will contain a synopsis of the purposes of the committee and the relation it will bear to all societies. The meetings will be held in the new Art building illustrated in this number, where ample room is provided for the purpose. Robert Craik McLean, editor of The Inland Architect, has been appointed secretary of the Congress Auxiliary Committee.

Unique European Sketching Tour.

From Portland, Maine, comes information of what may be not only of interest to architects and draftsmen, but give them an opportunity of seeing Europe in a most unique and inexpensive manner. This is a European architectural tour on bicycles, organized by the well-known architect, John Calvin Stevens, of Portland, Maine. The route to be traversed includes most of the cities of the south of France, starting about the first of August, and if a sufficient number of applicants are obtained will prove most beneficial and enjoyable to the participants.

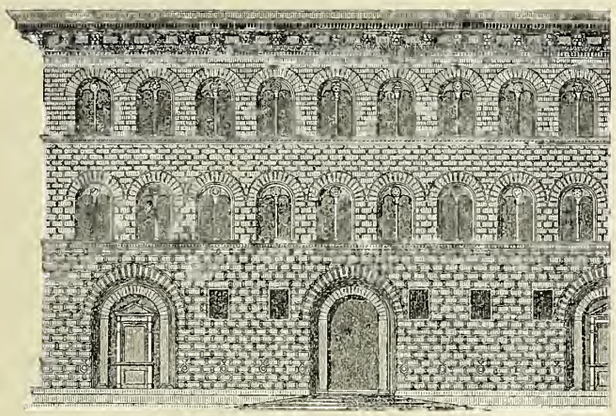
Architecture and the Allied Arts.

BY BARR FERREE.

PART IV.— *Continued.*

RENAISSANCE.

THE Renaissance produced a complete revolution in architecture. The methods, the style, the details of the old art were cast to one side, and an attempt made to return to the old principles and forms of the Romans as they were then understood. In Italy, the movement met with complete success because the monuments of classic art were abundant and the traditions of classic building had scarcely been extinguished. In the north, however, the Gothic style was indigenous, and aptly and readily expressed the thought and culture of the people, and the forms of the Renaissance were strange and unfamiliar. As a matter of fact, in France, even under the powerful impulse of the court, the Renaissance may be said to never have



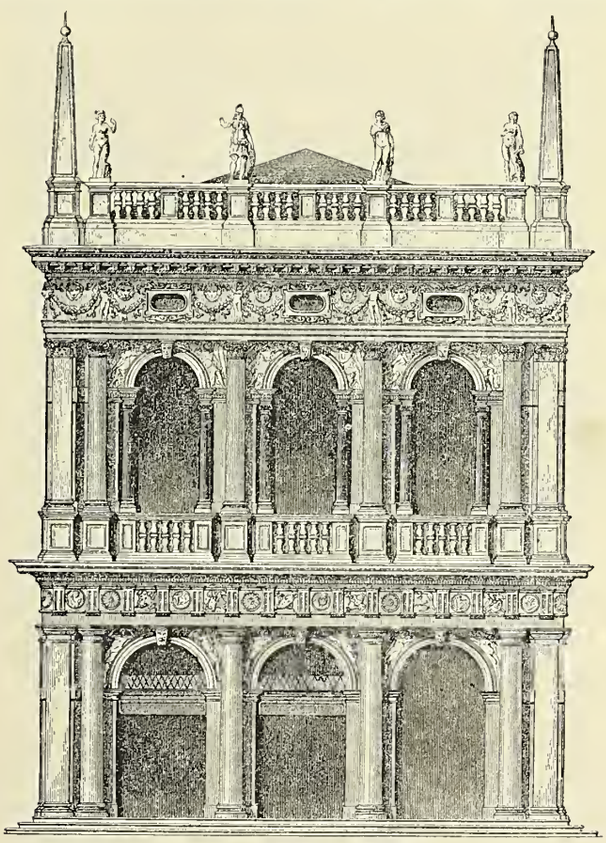
RICCARDI PALACE, FLORENCE.

taken complete root until, at least, the traditions of Gothic art had been forgotten through sheer absence of practice in them. Many of the earlier buildings of the French Renaissance are Gothic buildings, with classic details and ornamentation. Of the changes in methods of construction introduced by the Renaissance we have not to deal. It is sufficient to point out that while they were very great, the assistance of the allied arts for the obtaining of a full and complete effect was still relied on, and in some respects the opportunities of the Renaissance artists exceeded those of the Gothic and Roman builders. In the fourteenth and fifteenth centuries humanity made very great advances in many fields of culture. Literature had been at a low ebb, and while there had arisen an intelligent practice of architecture, the technique of painting and sculpture left much to be desired. An impetus was needed to complete the work for which the whole of the middle ages had been but a school of preparation. This was given by the study of the classic writers which was begun in Italy, and was pursued with such vigor that in a short time it monopolized the thoughts of all classes of people and produced a revolution in intellectual methods that is felt at the present day. Just as in the decadence of the Roman empire a new infusion of blood was needed, in order that the people might revive from the depressing effects of Roman tyranny and luxury — an infusion occasioned by the invasion of the barbarians, so now an infusion of new thought was required to make the work of the middle ages complete and give mankind a fresh lease of life.

The additional glory the allied arts gave to architecture in the Renaissance as compared with the Gothic was due to progress in technical methods. In Italy the change was more gradual than in the north, and we find works in painting and sculpture bearing indications of the new movement associated with buildings which may still be classed as Gothic. It was not long before buildings appeared in the new form. They are no longer erected by master builders working in harmony with their men, but are built from designs of the architect, who now acquires an importance that he had not previously occupied. Unfortunately he is compelled to work in a new style, in an unknown form in which he seeks to follow some well established models rather than to express some definite idea of his own. As those most conversant with the new art were familiar with practical work, it followed that many of the earlier architects were also painters or sculptors, and they frequently not only designed the building itself but prepared the ornamentation with their own hands. Among the early Renaissance artists who practiced architecture were Nicola Pisano and Givanni Pisano, both sculptors; Giotto, painter and sculptor; Andrea Orcagna, painter, sculptor, mosaist and goldsmith; Brunelleschi, goldsmith and sculptor; Andrea Verocchio, goldsmith and carver in wood; Bramante, painter and Sansovino, sculptor. The list could be considerably extended, but these names may be taken as typical of the multifarious pursuits followed by the leaders in the new movement. At no other period of the history of art do we encounter the names of so many men who are proficient in various branches. It was thoroughly in keeping with the spirit of the time. Men were so filled with enthusiasm that they could not content themselves with following one form of art, but must seek relief in variety. The forms and methods of one art were thus gradually transferred to others, and not a little of the irregularity and extravagance of the Renaissance is to be attributed to this practice of various arts by one man.

The architecture of the Renaissance embraced a great variety of façades in which sculpture and ornament were included in variable quantities. In this period it is the palace which receives the most treatment and is the characteristic structure of the Renaissance, just as the church had been of the Gothic period. Many great churches were built in the Renaissance style, but ecclesiastical buildings did not receive the progressive treatment which is to be noted in secular edifices. In this respect the Renaissance bears somewhat the same relation to the Gothic as the Assyrian did to the Egyptian. In the Egyptian and the Gothic it is religious architecture which is especially typical, and in the Assyrian and Renaissance it is the palace. The Assyrian style was not the successor of the Egyptian as the Renaissance was of the Gothic, but the sequence of each style was the same.

It is in the palace façade that Renaissance architecture obtained some of its most impressive as well as most characteristic forms. Sometimes, as in the Riccardi Palace at Florence, they are almost devoid of ornament, the features of the front consisting only of the heavy rusticated stonework, with windows arranged at regular intervals. In other buildings, as in the Guadagni Palace in the same city, bands of sculpture are introduced with a richer effect. In the library of S. Mark at Venice, a new form is introduced, consisting of a series of two superimposed arcades, having developed entablatures richly decorated with sculptured ornament. In ecclesiastical buildings a

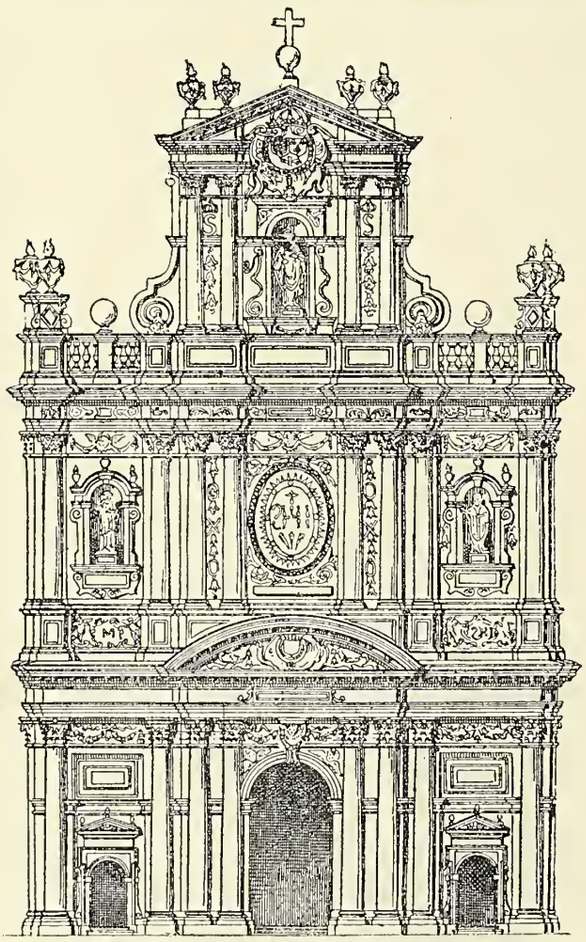


LIBRARY OF S. MARK, VENICE.

similar variety of façade is to be noted. Almost the sole ornament of the front of the Church of the Redentore at Venice are the columns, capitals and entablatures which form the architectural features. In the Church of S. Giorgio Maggiore, in the same city, a richer order is used and greater elaboration effected by the introduction of niches and panels. Very different from either of these is the Church of S. Maria Zobenico, also in Venice. The façade is a curtain in which the solitary opening is the high-arched doorway in the center. Three

pairs of coupled Ionic columns, mounted on high pedestals and supporting a debased cornice, form the chief feature of the lower portion. Between the pairs of columns are ornamental niches, containing statues. The second tier is decorated with four pairs of coupled Corinthian columns, between which are niches and statues, and the upper part consists of an elaborately designed circular pediment also decorated with sculpture. The entire front is a rich curtain without any especial structural signification and amply illustrates the tendency toward over-decoration practiced in some of the Renaissance schools, and which in a more debased and rococo form may be seen in the façade of the Church of S. Paul and S. Louis at Paris.

Without undertaking an examination of the various schools of Renaissance architecture, or attempting an examination of their ornamental differences, it may suffice to remark that the capitals followed the classic form, sometimes with new modifications, sometimes as a combination of the Gothic and classic, and sometimes in an attempt at an actual reproduction of the classic. Sculpture, as we have seen, was employed in several ways; sometimes it was extremely limited, and at others it seemed impossible to have too much of it; it was seldom employed in the judicious and careful manner which is frequently the case in the Gothic period, and was also characteristic of the Greek. Sculpture, in fact, soon became an independent art, and lost the connection with architecture which had been so marked in the earlier epoch. From an accessory art, which it was in the Gothic, it became entirely independent and free. In this lies the great distinction between the Gothic and the Renaissance styles. In



CHURCH OF S. PAUL AND S. LOUIS.

the former we have to do with schools of artists, with bodies of men working in various directions but with one end in view, and if not absolutely under one guiding mind, with the same guiding inspiration. In the latter, we have individuals who have their own names to make and their own fame to insure. Comparatively speaking, we have the names of but few individual workers in mediæval art; the records of the Renaissance fairly bristle with names, so that their very memory is a burden. The intimate union between the allied arts and architecture is no longer to be noted, though all the arts are still employed with a profusion scarcely exceeded by the richest Gothic. An apartment is built, and then the world scoured for the most accomplished decorator, who is forthwith ordered to fill up the space that has been prepared without any special reference to the form of decoration he will apply to it. Art, as a whole, did not suffer by the change, though architecture did, and, from being a living art which was practiced for its own sake, became a mere vehicle for the display of sculpture and painting. Both these arts are so very different in intention, methods, and materials, that it is seldom that a man who has achieved great progress in one accomplishes equally good results in the other. They required for their development individual work that was unhampered by the labors necessary to the arranging of the multitudinous details of a fully decorated edifice. Leonardo da Vinci, Michael Angelo, Raphael and some others who were architects, sculptors and painters, were exceptions to this rule; but these were very Titans in art, and the work they were enabled to accomplish can in no sense be viewed as a criterion for men of lesser caliber. Michael Angelo and Raphael produced wonderful works in decorative painting, and gave a dignity and grandeur to buildings and apartments to which they were not entitled architecturally.

(*To be continued.*)

Notes from our French Exchanges.*

THE NEW GALLO-GREEK MOSAIC.

THERE has just been discovered at Rheims a new Gallo-Roman mosaic of much interest, representing two gladiators armed with short swords, shields and bucklers, fighting in the arena. These gladiators have a great similarity to those of another mosaic found in this same city of Rheims, and known to the learned world under the name of the mosaic of the promenades. This fragment was unearthed not far from the gate of Mars in 1860, and the librarian of the city has made a most complete study of the find. In that work he described all the costumes of the various personages which decorate the mosaic, giving the colors and shapes of the costumes, and the rôle that each of these attendants acted in the bloody spectacles in which they were the victims.

Thanks to this work, the subject of the recently discovered is very naturally explained. M. Charles Hormand calls it Gallo-Greek, and we will not dispute the title. We know today what to think of the so-called Roman art. Montesquieu truly characterized it when he said that the Romans never knew but one single art, and that of war; and the satirist, Horace, says that vanquished Greece civilized her savage conqueror by bringing, for the first time, the art into Latium.

The title of Gallo-Greek, hence, does not displease, and we willingly adopt it, since the Gauls, conquered, like the Greeks gradually transformed among themselves the artistic importations of their masters, and, among other things, their mosaics partake of a very original character, as proof, besides the mosaics of Rheims, we would cite that of the chariot race, discovered in 1866, at Lyons, near the ancient abbey of Ainaye, and preserved in the city museum.

This is, possibly, even more Gallic than that of Rheims, and engravings have made it well known to students, and shows all the details of the racing, even to the two factions of the blue and the green disputing for the prize. Since it is now beginning to be the fashion to again use mosaic and give it a place of honor among the arts in France, we would urge the artists who are studying this branch to gather inspiration from that which remains to us of a period when this art was truly French, and was in such common use that excavations now made in the old cities of that time everywhere, even in remote Brittany, upon the shores of Provence, or in the mountains of Auvergne, bring to light admirably preserved specimens of this industry, which was, however, hardly natural to the Gallic race.

The Gallo-Roman mosaic makers knew how to maintain their industry at a high grade. They did not try to reproduce frescoes by means of little cubes of marble, placed one beside the other, with only the patience of a prisoner trying to free himself, but they contented themselves with making floor tile, and the rôle in which these mosaic workers can claim their great excellence is in the thin tile. However much may be said to the contrary, our modern mosaic workers have here a field large enough for them. And since people complain now of the schools of this art established with such difficulty at the Gobelius factory, why not simply instruct the pupils to reproduce the mosaics of Rheims, Lyons, Aix, Nevers, Autun, and of many other cities of Normandy, Poitou, Burgundy, Flanders and Brittany?

These models should indicate to the skillful importers the true tendency of French taste. In place of squares, octagons, triangles, circles and interwoven circles, with which we are overwhelmed, they might reproduce those carpets of flowers which were the joy of our fathers, and which the potters of the thirteenth century imitated so brilliantly in the cathedrals of Champagne, where the enameled tile floors far surpassed the mosaic pavements of the foreign Italians.

How necessary becomes the foundation of a museum of real French industrial art! But while waiting the realization of this dream we can only encourage the study and preservation of anything bearing upon these subjects.

AUTOMATIC OVERFLOW FOR CISTERNS.

A contributor to "*La Construction dans le Nord*" illustrates a rather novel automatic cistern overflow, which he claims meets the requirements in a simpler manner than anything in use, provided the down-spout can be carried direct into cisterns. He says several systems are in use for carrying off the water when a cistern is full, the most common being an overflow pipe, from a point near the top of

*Translated and arranged by W. A. Otis, architect.

the cistern connecting with the sewer. The objections here are, however, the gases from the sewer are apt to penetrate into the cistern, for even when furnished with a trap, in a dry season the water evaporates, leaving free entrance to all foul gases.

Another system is to have no overflow pipe, but when filled the cistern runs out upon the ground through the circular opening of the top, where it can then be collected and carried by open drain to sewer mouth or allowed simply to spread itself over the ground, neither of which is a satisfactory solution of the question. Sometimes, when the cistern seems sufficiently full, persons are satisfied to turn the down-spout from the cistern connections; the great difficulty of this method is however to operate this system without an excursion in the midst of a rain storm. In all overflow systems the turning off of the water should be provided for, since water coming from melting snow, as well as the first washing of a roof after a long drought, is not desirable, containing as it often does much foreign matter, which simply pollutes the water.

To do away with these inconveniences the following system has been successfully adopted, as shown by the annexed cut. The down-spout A passes into a rectangular box B C, at the bottom of which are two tubes of a slightly larger diameter than A. One of these D passes directly into the cistern, the other E empties into a little open gutter connecting with the sewer. The bottom of the box is divided into two compartments by a transverse sheet of metal G, and at the top of this little partition, which is a little less than half the height of the box, is the axis of a pivoted balance H of the shape shown, by which means the water will be carried either into D or E, according to the position of the balance. It now is only necessary to render this apparatus self-acting, which is done by fixing at the extremity of the balance corresponding to the cistern pipe a moderately stiff galvanized iron wire attached to a float J. Until the water reaches this float, it holds the balance turned downward to cistern, and the level of the water continuing to rise, the balance soon takes a horizontal position, when for a few moments the water will pass into both pipes but will soon be turned into the overflow as water in cistern increases. To complete the apparatus a small chain K attached to the end of balance and carried, if possible, inside of building, enables one to raise the balance and not permit the entrance of water into cistern unless it be such as will be desirable to save.

THE DWELLING HOUSE IN MEDIÆVAL EGYPT.

(*Le Moniteur des Architectes.*)

The monuments of antiquity that remain to us bear witness to the piety and to the greatness of these ancient peoples, but show almost nothing of the manners and customs of the nations which reared them. Domestic architecture, whose forms are determined by the requirements of private life, might be able to give us valuable information upon this so little known and yet so interesting side of history, but the private dwellings have everywhere left little or no trace.

Of all the countries of Islam, Egypt has been the most often conquered and the most frequently exposed to the dissensions of the military rulers who disputed with each other for the sovereign power. The capital, where ordinarily these bloody dramas began and ended, has not preserved a single trace, so to speak, of the ancient residences of the caliphs and sultans, except possibly one doorway at Bab-el-Wisir. However, several private dwellings have retained, notwithstanding the ravages of time and revolutions, some vestiges of their ancient splendor, showing that the riches and elegance which the Arabs employed in their public buildings was equally remarkable in their private residences.

The greater number of the elegant residences were confiscated by the Turks after the fall of the Mamelukes, and given to the high Turkish dignitaries. Recently much of the window screen work has been destroyed to make place for windows on the European style; the arabesques and colors have disappeared under a thick coat of whitewash; in fact, they have sacrificed the comfort and beauty of the old house of Cairo to the tastes of the palace at Constantinople. Among the barbarians who have thus mutilated the chefs-d'œuvre of Arabian art should be mentioned Atham-Bey, former minister of public instruction, who prided himself on his taste, since he had spent several years in Europe. He ought to have appreciated still more his architecture, since he had heard it so greatly praised by the Franks; however, he was without the least compassion for the arabesques and stained glass of his own house — formerly one of the most beautiful in Cairo. Also it is to him that is due the destruction of the divan of Salah-ed-Din, an act of vandalism of which Mehemet Ali took advantage by placing his extremely uninteresting mosque on that site, where it today overlooks the city of the Caliphs and Emirs.

However, there are yet to be found a few houses at Cairo which have preserved (notwithstanding the efforts of men and of time) the appearance and arrangement no longer found in the newly erected house. The lower story of these ancient houses is of dressed stone and the upper stories of brick, while they are built in the most solid manner with very heavy piers of masonry, forming a sort of framework of the front of the edifice. These piers are joined by light walls, and the great bays thus formed are ornamented and filled with elegant open work, or reticular grille work, allowing the passage of both light and air.

From the outside the appearance of these houses is dreary and naked, for they were always built in such a manner as not only to conceal the life of the inmates from the neighbors, but at the same time resist an armed attack so frequent in the times of the Mamelukes, whose dissensions so frequently bathed the streets of Cairo in blood and turned the town defenseless over to the pillage of the soldiery. However, there are a few of these old houses whose façade is regular and pierced with large windows of reticular grille work. The outer door is generally more or less ornamented, according to the importance of the residence; and the oldest usually have inscriptions taken from the Koran, thus upon the doorway of one old house occurs this: "In the name of God," "There is no strength except in God," carved in old Cufic characters. The entrance to these houses is by a more or less narrow and dark vestibule, usually with one or two angles or turns in it so that it is impossible to look directly into the court yard. This narrow passage, like the entrance to a fortress, is often defended by two heavy doors, and occasionally by a veritable military construction with machicolation.

From the vestibule one enters into a large court yard, at the end of which is a vast hall, known as the mandarah or salamlik, decorated with a fountain and mosaics. The most of these halls open into a smaller room, also opening into the court, furnished with wooden benches, where the business with strangers was conducted. The mandarah is usually divided into two parts, one of which is lower than the remainder of the room, is never covered with rugs or carpets, but is used as the place to leave the foot covering. In handsome apartments this place is square in shape, paved with marble or mosaic and ornamented with a fountain.

In the second story one finds generally another room exactly similar to the mandarah but much more richly ornamented, and serving as a parlor for the ladies. It is decorated with rich stuffs and formerly were to be seen vases from China, brass vessels, inlaid with silver, from India, and Egyptian glassware. This room, though beautifully paved, has neither basin or fountain; the ceiling over the raised portion has a skylight covered by a cupola which gives both light and air — both the high and the low portions of this room (for it has a raised part same as the mandarah of the first floor) are very richly but differently decorated — the smaller portion being the most elaborate. Wood is the principal portion of this decoration and is carved with exquisite skill, being used in the ceilings in panels, while around the niches it is open work, and in the panel work of doors and cabinets, entirely surrounded by fine moldings. This woodwork is frequently inlaid with ivory or tortoise shell, or else it is artistically turned and put together in the bays and the grilles that take the place of windows. All these houses furnish beautiful examples of detail of interior cabinet work, but what gives to the Egyptian houses their most original feature, are the immense bay windows (Moucharabyeh) which project on corbels either into the street or into the courtyard. In ancient times, as the etymology of the word signifies (place for drink), they were simply little projecting shelves protected by grille work, where liquids were exposed to cool. Finding the place agreeable, it was made large enough to contain a divan where one could take the air without being seen. Little by little they became of great importance and were the most remarkable features of the residences of Cairo. The upper portion of these bay windows often contained stained glass representing bouquets, peacocks, or curious arabesque patterns, which flooded the interior with light of all the colors of the rainbow. They were generally in panes of about eighteen to twenty-four inches wide, by twenty to thirty inches high, each composed of small pieces of colored glass, sometimes in fine wooden frames, but more frequently in a framework of plaster representing some complex oriental design. The wall opposite these bays is generally occupied by wardrobes, with beautifully carved doors. The walls that remain the same as on the ground floor are completely covered from floor to ceiling with square tiles arranged in panels, and surrounded by borders of the same. Blue is the prevailing tint and harmonizes with the gilt of the ceiling in a most agreeable manner. The large rooms in these houses are usually extremely high to obtain as much air as possible, while frequently the bedrooms at the side are of half the height and form two stories.

The ceilings of the main apartments are decorated with most astonishing richness, but all in good taste. The beams are carved and then gilded, and colored with a fineness and delicacy only equaled by the beautiful frontispieces of old manuscripts. Below the ceiling is a frieze, into which are interwoven verses from the Koran or from the Borda — a poem in honor of Mahomet — containing many beautiful thoughts. In other portions of the wall and ceiling decoration, inscriptions are worked into the decoration, they usually being moral maxims or ideas appropriate to the use of the room; the most frequent one being: "The fear of God is the beginning of wisdom"; while a very curious one noted is, "Men are like the teeth of a comb." The wish, "Your very good health," is of common occurrence.

In the greater part of the houses the date of the construction is found written in some sort of an acrostic, but this innovation is not of Arabic origin, and only commenced to be used at the time of the Turkish conquests in the sixteenth century.

Besides the large apartments mentioned there are a multitude of smaller rooms more or less richly ornamented, together with boudoirs, secret passages, and numerous secret chambers. Like all the European houses of the middle ages, these old houses of Cairo each had their small secret chamber constructed with great strength and fireproof in case of fire or necessity of concealing the riches of the house. The walls of the Mussulman houses are not like ours, completely bare, but are covered with wardrobes, niches and brackets, which replace the greater part of our furniture. A raised platform on three sides of the room serves as a place to put the divans, which are the sofas in the daytime and the beds at night. With the habits of the Arabs it is only necessary to bring rugs, carpets, cushions and a few earthenware vessels to completely furnish a large dwelling, and nothing is wanting for comfort in a house in a tropical climate. The use of baths, so common in antiquity, is still in full vigor among the patricians of the Orient, and all the houses of people of means contain two or three small rooms containing a great basin, and adjoining room as reposing room, but this portion of the old houses seems to have suffered more than any other, and there are but few remaining perfect specimens.

Proceedings of the Sixth Annual Convention of the National Association of Builders.

FIRST DAY — MORNING SESSION.

THE sixth annual convention of the National Association of Builders of the United States of America was held in the association hall of the Young Men's Christian Association, at Cleveland, Ohio, January 18, 19 and 20. President Arthur McAllister occupied the chair. Secretary William H. Sayward, of Boston, was assisted by William Harkness, of Philadelphia.

The convention was called to order by the president at 11 o'clock A.M., who, after prayer by the Rev. R. A. George, introduced Mayor Rose, of Cleveland, who made a welcoming address which was well received.

The president then addressed the convention as follows :

PRESIDENT'S ADDRESS.

Gentlemen of the Sixth Annual Convention: It is with great pleasure that I welcome you on behalf of the Building Trades Association to our city. For the sixth time we are assembled in convention to consider questions which are of supreme importance to us as builders, and it is of the utmost consequence that we should bring to the discussion of these questions our best and most earnest thought. That there are questions of sufficient importance to demand the careful attention of the builders throughout the country is shown by your presence here today. The report of the secretary will inform you as to the work which has been accomplished, in whole or in part, during the year just closing. And while I do not desire to anticipate anything he may have to say, I can but express regret that more vigorous action has not been taken in the matter of organizing and fostering trade schools. As I am informed, Philadelphia stands almost or quite alone in this matter. If American boys are to learn mechanical trades they must have the opportunity of doing so provided by such schools. Our workmen are supplied almost exclusively by immigration, very much of it of an undesirable character, in fact, largely of such character as to cause serious damage to the well-being of the country, and to threaten the permanency of our institutions. I am fully in accord with the published views, as expressed by their resolutions, of the Workmen's Association in New York, only I would not confine the restrictions to the Chinese. As good citizens we should encourage the establishment of trade schools, and as organizations the exchanges, affiliated with the National Association, working in harmony, could do much toward the accomplishment of this object. I entertain the hope that your presence here will have the effect of assisting our local builders to a better appreciation of the advantages of proper organization and of affiliation with the National Association. Not organization having for its object the getting of something for nothing, but organization whose aim shall be to place the building business upon a plane as high as that of any business practiced in this broad land. The value of the interests involved in our business is so large as to demand an ability and an intelligence second to that required of no other business man, and we should avail ourselves of every possible source of information in the acquisition of a thorough knowledge of the best business methods. We should cultivate a high sense of business honor and have full regard for the rights of our fellows. Let those of us who are less fortunate, less fully equipped, those who are not yet upon the high plane which they should occupy, receive assistance and encouragement from those more highly gifted. One of the most level-headed attorneys of this city said to me two years ago in speaking of a contract which I had myself signed, "It always makes me mad to read a contract such as builders sign." In every business except ours a man who makes an agreement to do a certain thing has this thing specifically set forth, just that and nothing more. The thing to be done and the amount to be paid are both limited. Now, in the agreements which we make the amount to be paid is fixed — the work to be done only partially so. Both drawings and specifications are very frequently incomplete, but the owner is protected against loss on this account by some such phrase as this in the specification: "All work necessary to complete this building and which may not be specifically set forth herein shall be done under the direction of the architect without additional cost." Now, the builder who signs a contract with such a phrase as that above quoted in the specification agrees to do for a stipulated sum an amount of work limited only by the conscience of the architect. It is no answer whatever to this to say that the architect is usually fair and that he rarely takes advantage of his opportunity to damage a contractor. There is no reason in justice why he should have the opportunity, and every reason why he should not. There is no reason why any interpretation that is necessary should not be made before the price is fixed and the agreement signed. I know that the claim is made that it is impossible to foresee all the points which may come up. If that is true then leave those points to be taken care of by subsequent agreement, as is now done in some of the best offices. Why require the builder to draw upon his imagination and anticipate that which it is admitted cannot be foreseen? It is our legal and just right to have the agreement limit the work to be done as rigidly and completely as the sum to be paid is limited. There is another matter in this connection to which I feel justified in calling your attention, and that is the subject of bonds of indemnity and reservation of payment. To illustrate: A builder agrees for $500,000 to erect a building complete. He is required to give a bond of indemnity for not less than $100,000, conditioned that he shall complete the work in accordance with certain drawings and specifications which are to be interpreted by a gentleman who is the paid agent of the owner, and in addition to this bond there is reserved the payment of not less than fifteen per cent of each of the partial payments provided for under the agreement, which reserved payment remains in the hands of the owner until the building is completed, usually thirty days after completion and acceptance. When the building has been carried to within $20,000 of completion, and the builder has been paid according to agreement up to that time, the owner has in his possession $72,000 worth of work which has been completed by the builder and his bond for $100,000 to secure the completion of $20,000 worth of work, and at the completion of the work and prior to acceptance the owner has $92,000 of the builder's money and a bond for $100,000. In practice it seems to amount to just this: At the close of such a contract, supposing that the work has been completed in one year, the builder has given the owner a bond, as above stated, for the privilege of having the owner keep $72,000 of the builder's money for about seven months and of $20,000 for thirty days without interest. As a business proposition I think nothing could be more unjust. Is there any reason in justice or fairness why some such arrangement as the following could not be made: When twenty-five per cent of the money value of the building has been put in place and accepted by the owner, through his agent, the architect, have a settlement and pay the reservation up to that date. The owner's guarantee is not impaired, because he has the same bond for the completion of seventy-five per cent of the work as he originally had for the entire building. Now, let this be done at the completion of fifty per cent, and again at seventy-five per cent of the work. And now, gentlemen, in closing, let me congratulate you upon the fact that our association is and has been exercising a wide influence, not only in our own country but also beyond the seas. I am told by our secretary that he has applications from almost every part of the English speaking world for reports of our proceedings and other of our literature. This shows us that wise action on our part may produce effects beneficial to our craft in places far removed from us. For this and many other reasons let us try to do our work well.

At the conclusion of the president's address, Secretary Sayward appointed Mr. William Harkness to act as assistant secretary, and the president appointed the following delegates as the Committee on Credentials: W. D. Collingwood, of Buffalo; George W. Libby, of Minneapolis, Thomas J. Hamilton, of Pittsburgh; James I. Wingate, of Boston; and C. C. Dewstoe, of Cleveland.

The convention then took a recess to await the committee's report.

When the convention was again called to order, it was found that the report of the Committee on Credentials consisted of a majority and a minority report. The majority report was first read. It was signed by Messrs. Collingwood, Libby, Wingate and Dewstoe, and was to the effect that twenty-six cities were represented and ninety-eight delegates were entitled to seats, as follows: Boston, 6; Buffalo, 4; Baltimore, 4; Cleveland, 2; Chicago, 13; Cincinnati, 4; Denver, 3; Detroit, 2; Grand Rapids, 3; Indianapolis, 3; Louisville, 3; Lowell, 3; Lynn, 2; Milwaukee, 3; Minneapolis, 2; New York, 7; Omaha, 2; Philadelphia, 7; Portland, 3; Providence, 3; Rochester, 3; Saginaw, 2; St. Louis, 5; St. Paul, 4; Wilmington, 2; Worcester, 3. The report concluded by stating that the Pittsburgh exchange had presented the names of eighteen delegates but was entitled to only four. The committee said they were unable to determine which four of the eighteen were entitled to seats.

The minority report was as follows: "I do not concur in the majority report on credentials so far as it applies to the Pittsburgh exchange, and report eighteen delegates as properly authorized from that city."

J. Milton Blair, of Cincinnati, moved that the majority report of the Committee on Credentials be adopted.

F. M. Harris, of Philadelphia, moved as an amendment, that the minority report be adopted.

It was explained that the Pittsburgh Builders' Exchange had sent eighteen delegates to the convention, a representation based upon a membership of eight hundred persons. At the last convention its membership was only two hundred and it was assessed upon that basis for a per capita tax, and the majority of the committee therefore decided that Pittsburgh was only entitled to four representatives.

A long and well sustained discussion followed, the majority report being sustained by J. Milton Blair, of Cincinnati, George Sword, of Chicago, P. S. Curry, of Lynn, Massachusetts, C. C. Dewstoe, of Cleveland, and others, and the minority report by W. R. Stoughton, H. R. Rose and W. S. Powell, of Pittsburgh, and M. B. Madden, of Chicago.

On motion of G. C. Prussing, of Chicago, a report of the action taken by the directors upon the matter was read. The secretary read the minutes of the directors' meeting, at which it had been resolved that the constitution should be interpreted to mean that delegates should be elected upon the number of members at the time the per capita tax was levied, and that the current year extended from the close of one convention to the close of another. The result of this interpretation would be that Pittsburgh was not entitled to eighteen delegates until the next convention.

Mr. Dewstoe again spoke against Pittsburgh's claims, and in support of the board's interpretation of the constitution. Mr. Harris said the question was a very important one, and might result in the disruption of the association. He urged that Pittsburgh should be given the benefit of the doubt as to the construction of the constitution, and that the full delegation be seated.

The previous question was called for by Mr. Madden, and the minority report in favor of Pittsburgh was rejected by a vote of 28 ayes to 71 noes. The majority report was then adopted, whereupon the chairman of the Pittsburgh delegation asked permission to withdraw his delegation for consultation. Mr. E. E. Scribner, of St. Paul, urged the Pittsburgh men to accept the convention's verdict, and select four of their number as delegates, and suggested that the other fourteen be given seats as alternates. The Pittsburghers left the hall in a body, however, and did not return while the session lasted. They were thoroughly angry and did not attempt to conceal their displeasure.

ROLL CALL.

The following were the delegates approved by the Committee on Credentials and were present at the sessions :

Boston—J. A. Wingate, Ira G. Hersey, W. H. Sayward, S. F. Hicks, J. D. McLellan, Edmund Grinnell.

Buffalo—W. D. Collingwood, A. D. Berrick, J. Reimann, Charles Geiger.

Baltimore—E. L. Barrett, J. P. Brody, G. H. Creagar, Hugh Sisson.

Cleveland—C. C. Dewstoe, E. H. Towson.

Chicago—Joseph Downey, George Tapper, W. H. Alsip, M. B. Madden, William Henry, E. Ernshaw, Murdock Campbell, François Blair, James John, C. W. Gindele, Freeman Moses.

Cincinnati—J. Milton Blair, D. W. C. Bellville, L. B. Hancock, W. A. Megrue.

Denver—H. W. Michael, C. J. Smith, W. J. Hill.

Detroit—Warren G. Vinton, A. Albrecht, E. Austin.

Grand Rapids — H. M. Reynolds, P. C. Campbell, John H. Haskin.

Indianapolis—J. E. Twiname, W. P. Jungclaus, Conrad Buder.

Louisville—J. N. Strock.

Lowell—J. W. Bennett, G. H. Coggeshall, George H. Watson.

Lynn — P. S. Curry, B. H. Davidson.

Milwaukee — C. F. Kindt, C. G. Foster, Henry Ferge.

Minneapolis — George W. Libby, George Cook.

New York — Stephen M. Wright, Warren A. Conover, H. A. Maurer, O. T. Mackey, John Burns, James B. Mulry, Augustus Meyers.

Omaha — N. B. Hussey, G. Youngerman.

Philadelphia — Stacey Reeves, George Watson, F. M. Harris, W. B. Irvine, Murrel Dobbins, John S. Stevens, William Harkness.

Portland—R. W. Jackson, N. E. Redlon.

Providence — F. C. Markham, Richard Hayward, W. W. Batchelder.

Rochester — H. H. Edgerton, W. H. Gorseline, T. U. Finucane.

Saginaw — M. Winkler, J. Qualmann.

St. Louis—William M. Anderson, J. L. Gurdoy, T. Mockler, T. J. Kelly, Jeremiah Sheebau.
St. Paul — E. E. Scribner, J. W. L. Corney, George J. Grant.
Syracuse — J. E. Baker.
Wilmington — A. L. Johnson, C. J. Swayne.
Worchester — C. D. Morse, J. T. Darling, O. S. Kendall.
San Francisco—W. N. Miller.

When the convention settled down after the excitement caused by the exit of the Pittsburgh men had subsided, President McAllister appointed the committee on the place of next year's meeting and nomination of officers. The committee was composed of the following delegates: G. C. Prussing, Chicago; W. J. Hill, Denver; T. J. Kelly, St. Louis; H. H. Edgarton, Rochester; and N. H. Creager, Baltimore.

Secretary Sayward then read his annual report, which is as follows:

SECRETARY'S REPORT.

To the National Association of Builders:

EXCHANGES THAT HAVE TEMPORARILY WITHDRAWN.

The following changes are to be noted as having taken place during the year. The filial body in Kansas City has been obliged to temporarily drop from the list, owing to conditions existing in the body which necessitated a reorganization, and this readjustment has so disturbed the finances of that exchange that a suspension of affiliation with the central body has been necessary. It is very gratifying to note that the members of the Kansas City association deeply regret as a misfortune the complication which has forced them to suspend their connection with the National Association for even one convention, for their interest in the work and belief in the value of the association has only increased with their inability to participate. To quote the words of their secretary in a recent letter, where he refers to the fact that at their last meeting the question of the value of the National Association was discussed. "I never heard," he says, "either in or out of meeting, such favorable expressions as to the great good which the National Association has done, and the benefit which it has been to us," and he concludes by saying that as soon as they have reorganized we can count on Kansas City's reaffiliation. It might be mentioned incidentally that the building business in Kansas City has been at a low ebb for the past two years; it is natural to expect that a revival of prosperity there cannot be long delayed, and with it a more hopeful condition for the sister exchange in that city.

The exchange in St. Joseph, Missouri, has also suffered some reverses during the past year, and having also gone through with a very dull season for builders in the previous year finds itself unable to meet the requirements of our constitution in the matter of payment of pro rata assessment and has therefore been obliged to drop out of our ranks. The worst feature of this condition of things in the St. Joseph Exchange or in any other is not the loss to the National Association of the experience and advice of the delegates from these exchanges, although that loss is large, neither is it the loss of the amount of the assessment to the National treasury; it is rather the great misfortune which the exchanges suffer through the demoralization which follows from a cessation of interest in their associated work, a demoralization which will sometime require much more determined effort than ever before exerted to concentrate and combine their efforts and influence, as will surely be necessary. In this connection it is well to consider that one of the conditions which may properly be hoped for and anticipated in exchanges when thoroughly developed and utilized to their full capacity, is this, that instead of the exchanges as associations being weakened by the disasters and the poor years which are sure to come at intervals to builders in common with other business men, the exchanges will in such times of depression be the rallying points, the places of refuge where comfort and counsel, help and protection may certainly be obtained. Instead of misfortune driving men apart it will naturally furnish them a reason for closer communion and by combination of interests secure a proportion of safety otherwise unobtainable. There is no question that there are opportunities for mutual protection and benefit, particularly through seasons of general depression in business, and even in cases of special disaster, by the means of organization and combined endeavor, little dreamed of by even the greatest of enthusiasts as to the future of builders' associations. It is, of course, to be regretted that we are not already in possession of all the benefits that the future may develop, but we must not forget that the oldest of our local organizations is but young in its investigations, and cannot expect to have all the advantage of fuller growth. We have got to discover and develop our opportunities by slow degrees, but by and by we shall have learned that disaster need only make us the stronger, and the very stress and struggle, the risk and danger, will bind us more firmly together.

The filial body in Washington which up to the latter part of the year was apparently in full sympathy with the National Association, suddenly and without a word of explanation sent word of its withdrawal. Letters of inquiry sent officially and personally have elicited no response and the secretary's department is not in possession, up to the present writing, of any definite reasons to account for the withdrawal of this exchange. An intimation was given soon after the last convention that the Washington exchange was in favor of a $2 pro rata assessment and opposed to $3, but their assessment was paid on a basis of one hundred and thirty-five members, and as the difference between a $2 and a $3 assessment would therefore have been but $135, it is hardly to be supposed that the exchange would have withdrawn on that account. The defection of the Washington association is to be deplored, whatever this unknown cause may be. In many respects it was an exceptional body. Starting as an exchange within the last three years, without previous organization of this composite character, it rapidly advanced, outstripping many of the older bodies. Taking steps early in its existence to secure a building of its own, it bought a property and proceeded to erect thereon handsome quarters for its accommodation and the concentration of the building interests. The enterprise and progressive spirit manifested by the Washington Exchange has been the source of much gratification to the National Association, and it is to be hoped that no serious internal disaster is the cause of this withdrawal from our counsels.

The three withdrawals noted are fortunately all that the secretary is obliged to report, while on the other hand there are two additions, with others in prospect.

NEW ADDITIONS TO THE NATIONAL ASSOCIATION OF BUILDERS.

The Builders' Exchange of Chattanooga, Tennessee, and the Builders' Exchange of San Antonio, Texas, have secured affiliation in the manner prescribed by our constitution, and correspondence looking toward affiliation is being held with exchanges in Atlanta, Ga.; Albuquerque, N. M.; Davenport, Iowa; Elmira, N. Y.; Fort Wayne, Ind.; Galveston, Texas; Helena, Mont.; Portland, Ore.; Salt Lake City, Utah; San Diego, Cal.; Youngstown, Ohio; McKeesport, Pa.; New Haven, Conn.; Newport News, Va.; New Bedford, Mass.; Scranton, Pa.; Los Angeles, Cal.

REPRESENTING THE BUILDING INTEREST.

The thirty-six associations actually affiliated represent directly about thirty-five hundred firms, and indirectly very many more, for although many firms of builders in every locality may fail to belong to their local association, they are still represented, for the organized body acts for the general interest of all; and whatever benefits are secured by the organization, they are participated in by outsiders as well as insiders. It may fairly be claimed, then, that the whole building fraternity in each city that has affiliation with the National Association is represented through the local organization, and for that matter the whole building fraternity of the country is represented by the national organization and will secure benefits through it, if any be secured, whether they contribute to the result or not.

It is, however, a very interesting and instructive reflection that the actual membership of the exchanges that are connected with the National comprehends so large a number of business firms. It might be well for the committee on statistics to obtain during the coming year some idea of the number of workmen employed on the average by this large number of firms. It would be useless to hazard a guess, but it must be apparent to all that the total must be very great, and this information would be quite important as significant of our relation to the labor problem. By means of such information, we would also be able to fix the actual representative value of our association as compared to that portion of the building fraternity who neglect their duty to the whole by refraining from joining with others in association effort.

In this connection it is very satisfactory to be able to state that in almost every filial body reports show that membership is increasing. In some cases, the increase is extraordinary, owing to unusual conditions, but the general condition shows that the interest in exchanges is developing, and the roll of members is growing steadily larger. In addition to this encouraging condition of things, there is a very considerable increase in the number of associations, as will be shown later on in the statistical part of this report. The secretary's department has been besieged for information as to the best methods of forming organizations, scarcely a mail being received that does not contain some query of this character. The idea of association is most unquestionably spreading, and it is of the utmost importance that the new bodies that are being organized should start in such a manner that the work will not have to be done over again in a few years. Herein is manifest one of the beneficent functions of the National Association, namely: To aid in securing the establishment of associations of builders on the right basis, and prevent them in the incipient stages of their existence from making the almost inevitable mistakes which new bodies make unguided by the experience of others.

INFLUENCE OF THE NATIONAL ASSOCIATION OF BUILDERS IN AUSTRALIA.

While touching upon the growth of exchanges and the association idea, it may be well to refer to the example we have been giving to others outside of our jurisdiction. Mention has been made in previous annual reports of correspondence had with builders in Australia, looking toward the establishment of an organization similar to our own in that country. It is most pleasing and satisfactory to report that the efforts made by our brothers in this far-distant land have met with entire success. Their organization has been formed, with constitution copied word for word from ours, with only such changes and additions as the location made necessary. The name of their association is the Federative Builders' and Contractors' Association of Australasia. It will be noticed that the association not only includes the island continent of Australia, but all the English colonies in the Australasian Archipelago. Their second annual conference was held on October 27 and 28, last, at Melbourne, and a perusal of their report (which, by the way, follows the style of our own most faithfully) shows that much the same conditions exist with them as with us, and the reforms they are seeking are on the same general lines as those which we feel that we need here.

The president in his opening address gave due credit to this association in the following words, which I venture to quote as they contain much that is good and practical for us in addition to the praise bestowed upon our work. He said: "You are no doubt aware that in holding these conventions we are following the lead of the American builders, for finding the conditions of our business life to be similar in almost every respect to theirs, and that great benefits had resulted to them from their conventions, we determined to follow their example. At the same time we do not expect the success attained by them or even in proportionate measure to our lesser numbers; we cannot expect to do things in the order and with the completeness which obtains in the United States. If, however, we get no farther than an annual interchange of ideas and experiences between the leading builders in the Australasian colonies on matters generally affecting the interests of the trade, we shall have accomplished enough to repay us for the time taken up and the expense incurred, and should a crisis arise when we are widely separated, necessitating united action, we shall be the better prepared from having previously met and learned each others views. Let me say here," he continues, "we do not intend making hard and fast rules to bind the local associations. The resolutions we may pass must be taken as advice which, embodying the wisdom of the best trusted men of the association represented, will no doubt command the respectful attention of builders generally, and in most instances be followed."

This and much more which the president of the Australasian association uttered, might have come with equal force from the president of our national body, and the striking similarity of statement to much that has been presented by our presiding officers in the past should be the most convincing proofs that the means and methods we have adopted are those upon which we may most certainly rely for securing the ends we aim at.

THE OFFICIAL PROCEEDINGS OF THE FIFTH CONVENTION.

The report as printed of the last convention was much larger than that of any previous year, owing partly to the fact that more was undertaken, and partly to the fact that the discussions in the convention were much more extended than ever before. Five thousand copies of this report were printed and a large portion distributed to local bodies and to libraries and associations interested, keeping a supply on hand for future use. There is a continuous demand for our literature and the supply of our earlier convention reports is nearly exhausted.

A large number of pamphlets covering the very valuable history of the Philadelphia Exchange, as prepared by Charles Gillingham, Esq., of that body, have been printed and distributed. This history proves to be a very valuable addition to our literature, giving as it does so complete a description of the ways and means adopted to build up a model exchange, and which may well be an example for others to follow.

It will be interesting to the delegates to know that the articles printed in the columns of our paper have attracted such favorable notice that they have been widely copied in contemporary journals both in this country and abroad, which is in itself a very gratifying result. In some cases articles of considerable length have been copied in full, due credit being given to the source from whence they were obtained, thus other journals have assisted in circulating our literature and disseminating our principles. I still find great difficulty in getting news items from the various filial bodies, but such as I do receive are placed every month under the head of "What builders are doing" and excite much interest.

To give a detailed account of all the work put into the columns of *Carpentry and Building* devoted to our interests would be too wearying at the present time, and it is simply necessary to say that our motive is to keep the subjects that are the most pressing before the builders of the country in such form that they will attract attention, create interest, and give information. If we can only get the matter which we present thoroughly read, it will be most gratifying and the result cannot but be beneficial.

The official publications have been continued in *Carpentry and Building* through the past year, on the same lines as described at the last annual meeting, and the benefits arising from this method of disseminating news and discussions of matters of importance have proven extremely valuable. The secretary's department is constantly receiving correspondence awakened by the articles presented in the columns of this paper devoted to our use. One of the ways in which this has helped to spread the information which the National Association gathers was shown in the publication of the case of McNiel *versus* the Chamber of Commerce, in which the rights of the lowest bidder were definitely fixed by a Supreme Court decision. An abstract of this case and decision was printed in the columns of the paper, advance sheets being sent to the mid-year meeting of the directors, and by vote of that meeting several thousand copies were printed in convenient form for distribution. By these means the facts in this now celebrated case were widely circulated to those whose interest might be most certainly anticipated, and the result of this bit of work of the National Association is that many builders all over the country have been furnished with information of which they would otherwise have been ignorant, and have prosecuted suits to a successful issue which they might never have had the courage to undertake without this precedent which the National Association put into their hands.

In considering the value or benefit that the National Association has been, and may be, such things as this must not be forgotten, for the money that has been and is sacrificed by builders from not knowing their rights is enormous.

Through the medium of our publication the Uniform Contract is becoming more and more widely known. Hundreds of copies have been sent out by the secretary in answer to requests following the articles printed in the columns of *Carpentry and Building* on the value of this document and the importance of

insistence upon its use. Copies are sent gratis to any who apply, and in this way a very great number of individuals located all over the country have got definite information as to what the Uniform Contract is, and they in turn communicate it to others. There is no doubt but what the Uniform Contract is now firmly established, neither is there any question but what its use is gradually extending; still it needs constant attention by the officers of the central body and the equal interest of filial bodies, officers and individual members to make its use as general as it should be. Unless the importance of its use is continually placed before those who are called upon in the course of their business to make contracts by those who have been most instrumental in its creation, we cannot expect that it will be presented and pushed by others.

PAPERS DISTRIBUTED BY THE SECRETARY.

Of other literature that has been distributed during the year perhaps the most important was an address covering the causes which led to the establishment of the National Association, the work it has undertaken, the good it has accomplished, and the cost as compared with the benefit it has been to the builder's fraternity. The reason for the issuance of this document was stated in its opening paragraphs to be the need, at certain periods, of stopping to examine the reasons for and the relative value of associations and their work. The executive committee have been aware not only during this last year, but during all the preceding years of our existence, that a considerable number of individuals connected with the local bodies have been very honestly in doubt as to the possibility of good in the work undertaken by the national body. That this condition of doubt existed was no great wonder, for a large part of the business men in any and all vocations have given little if any study to the economics of associated work, either in separate or composite bodies, and therefore they are skeptics as to the value of united effort. To these and such as these was this publication particularly addressed, although it was intended to be a stock article for use at any and all times in the future when the query might be made as to what the National Association is, what it is calculated to accomplish, what it has accomplished, and what its work is to be. Besides this, a statement seemed to be needed at this particular time for the benefit of all, for none of us are any too well informed, and we all need constant stirring up to keep attuned to the needed pitch, in order that we may accomplish the things what we most desire to accomplish. There is always a period of slacking off in enthusiasm, and it is at just such times that an effective recital of our aims and accomplishments, our hopes and ambitions is of the greatest good. Our ambitions need to be kept freshly before us, for it is by our ambitions that we progress, and if we have no ambitions then we begin to drift backward into innocuous desuetude, and a state of uselessness to ourselves or others. This address seems to have had a good effect, and a supply of the document has been printed for use when needed. A number of copies have been brought to this meeting so that further good may be done by a general distribution here.

Before leaving this branch of my report, I desire to recommend one method of getting our literature, either reports of conventions, special reports of committees, discussions and articles prepared in editorial form, or other material of similar nature, more thoroughly before the members at large in the local bodies. In the first place, it would seem to be no more than right for the local bodies to urge upon their members the desirability of subscribing for *Carpentry and Building*, and not only subscribing for it, but reading, at all events, the articles that are each month prepared with the greatest care for the purpose of exciting thought and bringing about action in matters where all agree that study and action are much needed. One of the most prominent needs of the builder is a larger education, and any methods of securing greater thought and closer investigation should be encouraged. In consideration of the fact that we are engaged in a great and noble calling, we are too readily content with superficial information, and the builder will never realize how great his vocation really is until he comprehends its scope and understands its logic and its technique as well as its practice, until he grasps its full meaning from a business point of view, and follows it upon broad lines to its higher development.

NECESSITY OF FREQUENT MEETINGS IN LOCAL EXCHANGES.

The recommendation which the experience of the past year leads me to make then, in order that there may be less waste of the effort which is being made to disseminate valuable information and discuss important topics through the year, is as follows: Let the filial bodies make special effort to have their members take, and read, the official publication; then, to give an opportunity for the fullest comprehension of the articles that appear therein, let frequent meetings of the exchanges be held, at which the articles may be read and afterward discussed. In order to have these meetings full and successful, I have no hesitation in recommending that those readings and discussions be preceded by a dinner or a light repast. The meetings should be early in the evening at the hour when club dinners are usually called, say 5 to 6 o'clock P.M., which will give ample time for dinner and the "smoke-talk" which is to follow, and permit an adjournment at a seasonable hour. The meetings should be as often as once in two months, and perhaps monthly. It would be better to start off with bi-monthly meetings and increase in frequency to monthly meetings, rather than have the meetings too frequent at first and then suffer a lapse on account of having attempted too much.

It may seem strange to some that I should recommend a dinner in order to get business men together to discuss questions of infinite moment to their business welfare; but I have learned this much, at all events, in my connection with association work, that, whether the group of people concerned be bankers, or brokers, or merchants, or doctors, or lawyers, or ministers, or builders, the supplementary attraction of a dinner somehow brings a greater number together, and creates an atmosphere of freedom in which discussions progress more readily, and better results are obtained. I, therefore, heartily urge the various local bodies to adopt a system for regular dinners, to be accompanied just as regularly by discussions, the food for which will be found, if nowhere else, in the suggestions offered in the articles prepared and published in official papers, in the action taken at conventions and in other work of the National Association. It will be a capital way of creating interest in the work of the National Association simply to read all those productions systematically, but the discussion which will surely follow will build up methods of examination, analysis and comprehension which are so essential to that clearer understanding and deeper knowledge which the National Association seeks to encourage.

Considerable stress is laid upon this point for the reason that your secretary's observation during the last year and during preceding years has shown that the great need of all associations is the devotion of more time to the consideration of questions and methods in and through which the individual is affected, but which need the united study and action of the group of individuals in that particular interest, in order that modifications and betterments may be secured, in which all may participate. The great drawback to the efficiency of associations at the present day is the apparent existence of an idea that reforms can be obtained simply by the establishment of organizations or the adoption of resolutions. These two factors are essential as the primary movements, but they are of little value unless supplemented by continuous, persistent, regular work on the lines of organization and resolve, and without this work no result can be hoped for.

It is not easy for builders to recognize this need nor to lend themselves to the necessary work; their whole habit has been to suffer evils and "get along" in almost any fashion, no matter how much worse off each inattention and each sufferance may leave them. Secretaries, as well as other officers of local bodies, are continually appealing to the national secretary for advice and counsel as to how to overcome this apathy among the members, and your officer seeks on each occasion to suggest some new way and infuse new hope, even while confessing that the task is far from easy. To induce men to think more, and then to apply the fruits of their thought so that proportionate good may follow is the one great impulse which sustains all progress, and yet the history of the world shows that in no direction has progress been made without constant endeavor in the face of much distrust and apathy, even among those to whom the greatest benefit is to accrue.

This condition, then, is not peculiar to builders only, and your secretary takes this opportunity to say to all those officers of filial bodies who feel discouraged because their members are apparently heedless of their duty, and thus fail to put into operation the recommendations of the national body, or carry out effectively measures calculated to improve existing conditions; do not imagine for a moment that your experience is singular; it is the way of the world, and while it is disappointing that all are not imbued with the same feelings at the same time, and do not unite in a grand movement toward accomplishment of ends that all agree are desirable, it is still nothing peculiar to us as a class; all classes of men are alike in this — they suffer much as individuals before they will combine and ask for common good.

Progress cannot be hoped for in one steady march onward; there are bound to be haltings and retrograde movements, doubts as to the direction of our course, defeats on account of inattention and slothfulness, and besitations and discouragements innumerable; but if we only keep our faces in the right direction and keep moving we are bound to "get there" eventually.

Keep a motive back of all of our endeavors, and we need not question the final result, even though there may be many stages which surround us for the time with confusion and apparent defeat. Here lies one of the great functions of the national body, to keep the motives pure and high, to insist upon the integrity of the principles which guide us, and to encourage all the filial bodies through seasons of depression, doubt and discouragement.

In any event the National Association has no right to waver; no matter how any filial body may falter and fail, the central body must keep up its tone and raise the standard high, so that every filial body may feel, as one of them recently and aptly expressed it, "loyalty to the national body and to its principles is the greatest strength and the surest safeguard of the local bodies."

The National Association should be above discouragement, should discount all the obstacles which its high standpoint permits it to overlook, and steadily proceed in its great work of leading the builder up to higher levels, to greater security and to larger opportunity.

THE SECRETARY'S MISSIONARY WORK.

During the year just passed the secretary has done less missionary work in the way of visitations to filial bodies than in the two previous years. This has been partly owing to the fact that it was deemed best to let the exchange have a respite from the personal presence of so aggravating an official, giving them one season of freedom in which to work out some of the methods suggested on previous occasions; and partly owing to the fact that a method of frequent correspondence was set up, not only with secretaries of local bodies, but with every individual on the address list of the secretary, as a better means of keeping the various associations and their members more constantly in touch and informed as to all that seemed important, as well as stirred to new interest.

As the address list covers something more than a thousand individuals, scattered all over the country from Maine to California, some conception may be had of the broadcast distribution the doctrines, aims, and work of the National Association has had through the means of this special correspondence throughout the year.

LOCAL EXCHANGE STATISTICS.

This change too, has given opportunity for more special work in the direction of statistics, which has been conducted more systematically than ever before, following suggestion from the Committee on Statistics. As the result of this branch of the work I submit the following:

In the same line as last year a close watch has been kept to trace out all associations connected with the building trades, keeping accurate record of each association formed, with names of officers and other information regarding the body.

The total of associations in the United States on record at time of my last report was 616; the total today is 701, an increase of 85. We have also on record 40 Canadian associations and 78 associations in other countries.

The United States Associations are first classified as follows:

National Association	.....	40,	increase	since	last	report	..	2
Sectional "	.....	42,	"	"	"	"	..	1
State "	.....	75,	decrease	"	"	"	2	..
Local "	.....	544,	increase	"	"	"	..	84
							2	87
Deduct decrease								2
Net increase								85

Builders' Exchanges now number 104, an increase of 12 over last year and an increase of more than 150 per cent since the National Association was formed. As the Builders' Exchange is the basis upon which the National Association rests, we are naturally more interested in the increase of this class than any other, and as this great increase is almost wholly traceable to the impetus given to the exchange movement by the organization and work of the national body, this should in itself be a fairly conclusive answer to those who question whether the National Association has been of any service. It has inculcated the idea that through association and association only can these things be gained, can these improvements be made, which we believe we should enjoy. And all over the country the idea has been welcomed, and builders have been coming together and forming little organizations of the composite character recommended by the national, until now the grand total is now more than twice the number that existed five years ago. And still more significant is the fact that the older organizations are several hundred per cent more efficient, and are improving in character, strength, and importance with each passing year, all of which is traceable to the agitation which our central body has given through the national character of its work and the thorough dissemination of its principles.

It may be said that all of these local bodies should belong to the national, and this is most true; but time must be given to the larger part of them to get accustomed to their own existence, to learn to walk alone in their own neighborhood before they can be expected to join in the larger processions.

We must not forget that we are but young ourselves, and have as yet hardly more than outlined the work we have to do, and that as a matter of policy we need not be in haste to include every organization as soon as formed. The principal cities of the country are already represented in our counsels, and we can afford to move slowly in the direction of widening our representation, taking pains to influence the form of organization among the local bodies and insisting, for their good as well as our own, upon assurance that the body is representative upon certain methods of operation, and a certain degree of efficiency as a prerequisite to membership in the national body.

NECESSITY OF PROPER REPRESENTATION.

It can readily be understood that the smallest body in our ranks may be the most perfectly organized and the most effective in its methods and work, and yet representation according to our constitution is determined by the number of members in the local body; therefore a body which is poorly equipped and loosely managed, whose membership may be simply an aggregation of anybody and everybody without selection, thus blunting its usefulness and seriously impairing the value of its influence, may have in the national counsels a preponderance of votes and weight in deciding upon measures of one kind or another.

We have not, however, yet discovered any better method in the matter of representation, than to have it depend upon the number of members in the filial bodies, and it is doubtful if any better method can be devised; but we are, I think, as I said before, in a position to demand of all new affiliations that the bodies fulfill certain requirements as to organization and efficiency before they are admitted to representation, and these restrictions or conditions of entry will act as much for the good of the local body as for our own benefit, effectiveness and influence.

The improvement of the bodies already in representation is not to be ignored, and though requirements of a similar character to those applied to application for admission cannot be made to those already in possession of membership, oversight, advice and influence judiciously given and applied will produce that change for the better which is so much to be desired, as an element of strength within ourselves. It is a fact, as will be shown later on in this report, that a marked improvement has been going on in most of the older filial bodies ever since the National Association was formed, which is evidence in itself of the power of example, and the benefit springing from finding out what others are doing, and consulting together in search for better ways and methods.

In this matter thus developed by statistics gathered, we may at one and the same time feel rejoiced that the association idea is spreading, and yet be in no

haste to gather into the fold organizations which have not yet developed sufficiently to demonstrate whether they are going to be truly representative and efficient.

INCREASE IN SPECIAL TRADE ASSOCIATIONS.

There has been marked gain in special trade associations — almost every special trade showing additions during the year. The largest increase has been in plumbers' associations, a gain of sixteen (16), and the smallest in the iron workers, a gain of one (1). The only decrease shown is in engineering and building exhibits, three in each, a total of six.

USE OF THE UNIFORM CONTRACT.

Another effort in the line of statistics has been to discover to what extent certain work of the National Association has been effective and to find out the real state of the case in certain matters which have occupied the attention of the body and have been the subject of discussion at conventions. For instance, it was thought wise to get at the true condition of things in regard to the use of the uniform contract; to find out when work was done under one contract; what proportion of work in the various localities was done by members of the filial associations; to find out when work was being done in divided contracts; what proportion was done by members of filial bodies; to find out the proportion of work in which estimates were required in one lump sum, and on which they were required to be on separate branches of the work; to find out the proportion of cases where the architect asked for estimates in one sum for the entire work, and at the same time on separate branches of the work; to find out proportion of cases in which the successful bidder for the principal portion of the work was afterward required by the architect to assume and include in his contract additional bids obtained by the architect for work which was not a part of his estimate; to find out, in cases when the successful bidder was required to assume such sub-bids, on what proportion was he allowed a percentage for so doing.

The method adopted was to send blanks to the secretaries of the filial bodies, arranged so that answers to these questions should be made on the basis of ten of the principal buildings let during the last year.

The result obtained gives the following important information:

1. The uniform contract was used in fifty-one (51) per cent of cases cited.
2. When jobs were let under one contract, ninety (90) per cent were taken by members of filial bodies.
3. When jobs were let in contracts covering separate branches of the work, eighty-six per cent were taken by members of filial bodies.
4. Forty-eight per cent of work cited was let under the system of contracts for separate branches, and fifty-two per cent under the general contract system.
5. In seventeen per cent of the cases cited the architect was asking for bids in separate branches at the same time that he was asking for bids covering the whole work.
6. In twelve per cent of the cases the principal contractors were required to assume sub-contracts not in their original estimates, and in only ten per cent of such cases was the contractor allowed any percentage on such assumed sub-contracts.

LABOR STATISTICS.

Investigations have also been made in the statistical department to discover what hours are worked, and what wages are paid in all the various building trades in every city represented in the national body. The blanks sent out have not in all cases been returned up to date, but full reports are in hand from twenty-seven (27) of our affiliated bodies. A detailed report of each of these would be too tedious to present at this time, and the association may not consider it advisable even to print such information in the official report of the convention proceedings, but the information is in form and can be printed for distribution separately from the convention report and held for application when wanted, or can remain as it is at present in MSS.

The summary of this information shows that in sixteen out of the twenty-seven cities heard from payment by the hour prevails to a very large extent, and in eleven cities payment by the day is still largely in vogue. A comparison of wages in summary cannot fairly be made, and delegates are referred to the detail schedule above mentioned.

These items cover the work in the statistical line, and it can be readily seen that such work is complicated, and requires much application and persistence to secure it. More can undoubtedly be done in the future that will be of value.

THE MID-YEAR MEETING OF THE NATIONAL ASSOCIATION OF BUILDERS.

The mid-year meeting has been incidentally referred to. The meeting was held this year in September, in Cleveland, following the same course as last year of holding it in the same city as that where the coming convention was to occur, in the belief that it would create interest among the local builders. This belief was justified by the results. A very satisfactory meeting was held lasting through two days, at which a report of progress up to date was made by the secretary and by the various standing and special committees.

Reports were made as to conditions in the various cities represented, and recommendations were made to the committees on Uniform Contract and Lien Law. The secretary showed in his report detail of work done in his department.

RECOMMENDATIONS CARRIED OUT.

The various recommendations adopted at the last convention have, of course, been promulgated to all filial bodies, but the reports from the filial bodies which the secretary has been gathering during the year and particularly during the last few months, do not show that in practice any very considerable effort has been made to carry out the recommendations.

To quote words used in the address issued on the 1st of December, "The National Association can prepare the food, but it can neither eat it nor digest it"; unless filial bodies will advance upon the lines recommended they have no one but themselves to blame for any failure to amend conditions which they themselves complain of.

The most important action of the last convention, namely, that proposing a form of arbitration between employer and workmen, has received, as far as the secretary knows, but one or two full applications, but in each of these cases good has ensued.

LABOR DISTURBANCES OF THE YEAR.

During the year there has been but one important disturbance with the workmen which has concerned any of the filial bodies, and that was in Pittsburgh. This disturbance involved every building trade but one in that city and vicinity, and created the greatest excitement ever experienced there. The trade referred to which was not involved in the difficulty was represented by the Stone Contractors' Association on one side, and the Journeymen Stone Cutters' Association on the other. The reason why that trade was exempt appears to have been because the employers and workmen in that trade had coöperated upon a plan of settling all affairs of mutual concern, based upon the very lines recommended by our last convention in the adoption of the report of the Committee on Arbitration.

This is one of the two cases previously referred to as being the only one reported when the recommendations of the National on this point had been put in practical operation. The other case was that of the Master Builders' Association, of the city of Boston, and here also the plan has produced happy results, the relation between the employers and workmen in that branch being more harmonious than they have been for many years, all strikes avoided and many things done peacefully and quietly, which were before thought impossible. Everybody's business has gone along without embarrassment and many points of friction eased and smoothed by the plan adopted.

The Pittsburgh strike was long and bitter. The Builder's Exchange, of that city, proved to be the rallying ground and inspiration of the building interests, and from it as a center all action proceeded.

The membership of the exchange was largely increased under the impulse and excitement of trouble which touched the whole building community, so that from a membership of 135 at the time its pro rata assessment was paid into the treasury of the National, it now numbers about 1,000 members. This largely increased membership is an illustration of what has so frequently been stated in arguments for the organization of builders either in local or national bodies, namely: that while builders, the same as other business men, when matters are smooth and minds are fair, are apathetic in and perhaps directly antagonistic to the idea of associated efforts, when there comes a stress of weather they huddle together and find comfort and help by so doing. If by good fortune some have been wise enough to have the framework of organization ready, it is then considered providential and all are willing to take advantage of it.

The strike started on the 1st of May and has not, I believe, ever been officially declared off, although the result is practically the same. The Builder's Exchange has succeeded in maintaining the ground it took at the outset and has practically won the victory, although it is not so acknowledged by the labor organizations.

The national officers have not been called upon to act in the difficulty, but being consulted by representation from the Pittsburgh Exchange, while at a meeting of the executive committee in New York, an arrangement was made so that if it was deemed advisable by the Pittsburgh body to have the national officers present with them for consultation that they would respond in twenty-four hours' notice.

As no request was received the inference is that no advice or assistance was desired.

The Pittsburgh Exchange is to be congratulated on the great skill with which this difficulty was handled, and the cohesion of so large a body under such a strain is very remarkable.

The secretary regrets that he has not more full and complete report of this trouble, but has failed to receive from the officials of the exchange as complete an account from time to time as would have been desirable.

IN REGARD TO PAID LOCAL SECRETARIES.

I feel that I must renew my recommendation of last year in regard to permanent paid secretaryships for each local body. Until this plan is generally adopted, I feel sure that exchanges will fail to be as efficient as they should be. It cannot be expected that any business man whose welfare as such demands his attention to the details of his business, will, however deeply interested he may be in the association of builders to which he belongs, give that time and attention to its affairs necessary to keep it progressive and effective. To all exchanges I say, secure the services of some able, energetic man as your secretary; pay him a salary equal to his ability, give him a reasonable amount of authority, and he will be worth to your body all you will pay him. Without such definite and business-like service your associations may grow, but they will not grow as rapidly, as surely, as satisfactorily, as with such service. The exchange business is like every other business, it will not prosper without attention, and special attention at that.

IN CONCLUSION.

In conclusion, I am happy to say that the general condition of the exchanges is good. With the exception of the few cases cited in the early part of this report, my advices show that almost every exchange has increased its membership, is in good financial condition, has had little disturbance from strikes, and few, if any, complaints or disputes between members, or between members and architects. Exchanges have been advised from time to time during the year, in case disputes should arise in their membership, to endeavor to settle them among themselves by reference to committees of arbitration, or some similar board. In some cases this has been done, but the general condition is fortunately one of harmony.

The ownership of buildings by exchanges is increasing — Buffalo and Milwaukee having begun operations early in the year, have their building well along at the present time. Baltimore has a lot of land purchased, and plans approved for their building. Other cities report consideration of this subject, and before many years there will undoubtedly be many more exchange buildings throughout the country, cementing the members of the local bodies more firmly together, and giving strength to the chain that binds us all together. The builders of the filial bodies can be congratulated upon a generally prosperous condition during the past year, with other prosperous years in sight; they may feel thankful that so little has occurred to jeopardize their interests since we last met, and they can, I am sure, attribute a large share of their peace and security to the National Association.

W. H. SAYWARD, Secretary.

REPORT OF THE TREASURER.

The treasurer, Mr. George Tapper, of Chicago, presented his report, showing receipts during the year amounting to $13,269.37, and expenditures of $11,420.38, leaving a balance on hand of $1,848.99. The report was referred to an auditing committee composed of Messrs. John S. Stevens, of Philadelphia, and J. H. Coggeshall, of Lowell, Massachusetts.

George C. Prussing, of Chicago, presented the report of the Committee on Uniform Contract, which was as follows:

REPORT OF COMMITTEE ON UNIFORM CONTRACTS.

To the National Association of Builders:

For four years has the "uniform contract" been before the public for criticism, amendment, and use. Originally framed after exhaustive study of the subject by a joint committee of architects and builders it met at the outset with at least its share of criticism, and many suggestions were made by builders as well as architects. Nearly all critics declared the document lengthy; but singularly enough all suggestions for amendments proved to be injections and interlineations, and necessarily tended to add to the length of form.

We will not particularize or discuss certain objections raised by people in the ardor of their youth and employed to fill space, particularly as we are assured that the riper judgment of practitioners and eminent judges and lawyers approves of the point attacked, and shall trust to time and experience to bring conviction of the justice of every promise assumed by the contract.

The midyear meeting of this association expressed itself in favor of striking out the word "being" in the second clause of contract and the substitution of the word "if" therefor, and inasmuch as this is not a change of the sense or construction of said clause and would merely tend to make it plainer and more direct, we feel assured that it will be unanimously adopted at the next meeting of joint committee.

One of the original members of the joint committee, Mr. O. P. Hatfield, its chairman, has departed this life. He was an earnest, upright, and conscientious gentleman, and the acknowledged success of the form is owing largely to his practical sense and judgment.

At the meeting of the directors of American Institute of Architects held in New York last week, Messrs. Alfred Stone, of Providence, and Dankmar Adler and Samuel A. Treat, both of Chicago, were appointed members of the joint committee.

Owing to the recent appointment of these gentlemen a meeting has not been held as yet, and we must leave all suggestions for improvement of the form of instrument to the consideration of our successors.

The many advantages of this contract over all other forms employed are so well understood that it seems superfluous to dwell thereon. Its more universal adoption and employment rests with the builders alone. In each case the builder is one of the contracting parties and as such has an equal voice in the choice of form to be employed. Demand the "uniform contract" and it will be used.

(Signed) GEORGE C. PRUSSING,
IRA G. HERSEY.

The report was adopted as read without discussion, and the session adjourned.

SECOND DAY — MORNING SESSION.

The convention was called to order by the president at eleven o'clock, and after roll call, E. E. Scribner, of St. Paul, called attention to the omission of the Pittsburgh delegation, the secretary answering that no names from Pittsburgh were on the roll.

E. E. Scribner, of St. Paul, submitted the following report of the Committee on Legislation :

REPORT OF STANDING COMMITTEE ON LEGISLATION.

Your committee having been instructed by vote of the Directors at the recent mid-year meeting to consider "whether it would be feasible for the National Association to recommend any plan whereby the sale of building materials could be so regulated that contractors in the building trades would be entitled to purchase at lower rates than the outside public," would respectfully submit the following as the result of some little thought, inquiry and consideration of this very important subject.

It goes without saying that, in general commercial life and practice, in the handling and sale of any of the leading lines of either agricultural or manufactured products, outside of the building trades, it is recognized as right and eminently proper that he who purchases in carload lots, or, if otherwise, is constantly in the market buying the material demanded by the exigencies of his business, should purchase such product or material at lower rates than he who buys in smaller quantity or needs to make perhaps but one such purchase in a year, or possibly in a lifetime. Yet in the building trades, or among the manufacturers and dealers in building material, we are credibly informed that quite a different custom has and does prevail. Nay, so anxious many times are the purveyors of building material to make a sale that the laws of trade governing all other branches of commercial life are actually reversed, and we find the gentleman proposing to erect a single residence or store building able to buy cheaper in the open market the brick or lumber required than can his builder, who, it may be, is carrying on a building business amounting to a hundred thousand dollars or more per annum, and therefore, presumably, purchasing annually for a series of years many times more material than does the would-be owner of this one edifice. These being admitted facts and admitted wrongs, what is the remedy? Here your committee must admit that they find themselves confronted by a problem not easily solved.

It has seemed to the members of your committee that it would be unwise for them to attempt more at the present time than to suggest thoughts and ideas on this subject calculated to induce a thorough discussion of this very important subject, and of ways and means calculated to secure to the members of the various affiliating exchanges the maintenance of better business methods in this regard than now obtain.

We would suggest for your consideration, whether this subject could not be better handled, more conclusively and effectively settled, by the members of each of the master trades associations constituting the several local exchanges. The carpenters first taking action, then through a committee conferring with lumber dealers; the master masons pursuing the same course with the stone, brick and cement dealers, etc., and each association reporting their action and subsequent success to the local exchange for endorsement and ratification.

One important association, whose members are found also in our local exchanges and are represented on this floor, has decided and demanded that the manufacturers of the material which they as skilled mechanics are using and applying in the course of their business, shall not sell such material at any price, as we are informed, to any *but such master mechanics*.

Your committee feel that there may be serious objections to endeavoring to enforce so stringent a rule in all lines of building manufacture, and among all the building trades, and would suggest that the remedy for the evil so justly complained of, as we believe, by the master builders of the country, may be found rather in a system of discounts similar to that so familiar in mercantile life.

Such system to be made of course favorable to the master builder who is necessarily the steady buyer, whose trade the manufacturer or dealer naturally seeks and highly values.

With these thoughts and suggestions we hope, as above intimated, to promote reflection and discussion of this very important subject, not on this floor alone, but among these delegates and their associates in the various local exchanges where, after all, the real work of this body should be done and its results achieved.

(Signed) E. E. SCRIBNER, Chairman.

The report was discussed and adopted, with the recommendation that it be referred to the local exchanges for action.

John S. Stevens, of Philadelphia, chairman of the Committee on Lien Laws, submitted the following report :

REPORT OF THE SPECIAL COMMITTEE ON LIEN LAW.

Your special committee on Lien Law would respectfully report that they met in Cleveland at the mid-year meeting, and were in session on several occasions, four of the five members being present. The subject was thoroughly discussed, and we found that our views were at great divergence; in fact, we were equally divided as to the advisability of having a Lien Law in any form. It was decided to ascertain the views of all the exchanges connected with the National Association on this important subject. With that end in view, we caused to be issued the following circular letter to many of the individual members, and to all the filial bodies :

For the purpose of assisting the committee in the formulation of a comprehensive report, and recommendation for action, to the coming convention, the following questions are asked of each filial body, and you are urged to consider the subject carefully to the end that thorough and intelligent action may be taken on the subject by your exchange:

1. Is the exchange in favor of a Lien Law?
2. If it is, is the present law of your state satisfactory?
3. If present law is not satisfactory, what change would you suggest?

A letter has been sent to the secretary of your exchange, requesting that a meeting be held as soon as possible for the consideration of the subject, as it will be one of the most important under discussion at the convention.

By order of the
WILLIAM H. SAYWARD, Secretary. COMMITTEE ON LIEN LAW.

Replies were received from twenty-two of the thirty-two exchanges comprising the Association, as follows:

Seventeen answered in the affirmative to Question No. 1, "Is the Exchange in favor of the Lien Law?"

One in the negative.

One equally divided by a tie vote to Question No. 2, "If it is, is the present law of your state satisfactory?"

Six answered yes, while the balance either answered no or suggested certain changes.

While the replies to the circulars indicate that the exchanges, as bodies, are largely in favor of a Lien Law, yet your committee at their meeting on Saturday night last, were again evenly divided in their views on the subject. One of the committee who was present at the mid-year meeting was absent on this occasion on account of sickness, while the former absentee at the mid-year meeting was present at this latter meeting. Your committee fully appreciate the magnitude of the subject referred to them, with the great interests involved, affecting not only the general contractor, the sub-contractor and the material men, but equally affecting the interests of the owner. They, therefore, believe it would be to the best interests of all concerned to have this subject thoroughly and exhaustively discussed, with a view of securing the greatest amount of information on the subject by comparing the views of the delegates present.

In conclusion, we would respectfully recommend that the whole subject be referred to a standing committee on Lien Law, and that each exchange be requested to thoroughly discuss the subject, and to communicate any and all suggestions, from time to time, to the general secretary.

Your committee would offer the following resolution:

"*Resolved*, That a Standing Committee on Lien Law consisting of seven members, be appointed by the President to consider the subject, and report, from time to time, to the convention."

(Signed) JOHN S. STEVENS, S. D. TIPPETT, RICHARD SMITH, J. T. DARLING, W. C. VINTON, } Special Committee on Lien Law.

Before the report of the Committee on Lien Laws was discussed, several resolutions, telegrams, etc., were read by the secretary. The resolutions were referred to the proper committee.

The Auditing Committee reported that the treasurer's report was correct.

The report of the Committee on Statistics was not read, as it was mainly incorporated in the report of the secretary.

A resolution was offered by Stacey Reeves, of Philadelphia, referring the matter of Lien Laws to a standing committee of seven, to report from time to time. Mr. Reeves said that the present committee was evenly divided on the question, and he thought that the question was one that should be left to the local bodies in their several sections to determine.

The discussion of the subject of Lien Laws was reopened, and the discussion occupied the entire day. F. M. Harris, of Philadelphia, was in favor of local legislation, and spoke in praise of the Pennsylvania law. Secretary Sayward was not in favor of a law. Mr. Harris defended the law by stating that there was not a common law in the United States that protected the builder.

The session then adjourned.

SECOND DAY—AFTERNOON SESSION.

The Convention was called to order by the president at 2:30 o'clock, and the secretary read the following communication from the Pittsburgh delegation :

To the President and members of the National Association of Builders in Convention assembled at Cleveland:

GENTLEMEN,—At a meeting of Pittsburgh delegates the following action was taken:

WHEREAS, The Pittsburgh exchange elected eighteen delegates, as allowed by the constitution of the National Association of Builders, being one delegate for each fifty members in good standing, and

WHEREAS, On the presentation of their credentials to the proper committee of the N. A. B., a majority of said committee decided that the Pittsburgh exchange is entitled to only four delegates, including the delegate-at-large, and said action of the committee was confirmed by the convention now in session; and

WHEREAS, Although we regret being compelled to take action severing the connection of the Pittsburgh exchange from the National Association, as our heartfelt sympathies are with the association in its mission and work, yet as we cannot submit to gross injustice, therefore be it

Resolved, That we withdraw, both as delegates and as an exchange, from the National Association of Builders.

(Signed) A. J. HARNACK, Chairman.

On motion of J. S. Stevens, of Philadelphia, the report was received and placed on file.

The report of the sub-committee of the joint committee on a uniform building law was read by the secretary, as follows :

REPORT OF THE SUB-COMMITTEE OF THE COMBINED COMMITTEE ON A UNIFORM BUILDING LAW, AS AMENDED.

To the National Association of Builders of the United States:

1. The committee shall be known as the Combined Committee on Uniform Building Law and Reduction of Fire Waste.
2. The purpose of this joint committee is to investigate and consider the question of construction of buildings, with the end in view of arriving at conclusions which can be recommended to all cities of the country as the consensus of opinion of the various professions and callings represented in this committee, and as the best general methods to adopt for the interests of the people in the matter of construction of buildings and protection against loss of life and loss of property by fire.
3. The combined committee shall consist of three members from each of the following bodies, namely: The National Association of Builders, the National Board of Underwriters, the National Association of Building Inspectors, the National Association of Fire Engineers and the American Institute of Architects, who shall be chosen in such manner as may be deemed best by the bodies which they represent.
4. The officers of the combined committee shall be a chairman and a secretary who shall also be treasurer.
5. Regular meetings of the committee shall be held annually, if practicable, at the time of the annual meeting of the National Association of Builders, and special meetings at the call of the chairman; but a sub-committee shall be appointed to act during the recess of the combined committee, under such instructions as may be given it.
6. Each association shall pay the expenses of its own delegates, and one-fifth of the general expenses.

After several recommendations upon the subject had been presented by delegates the convention resumed the discussion upon lien laws.

P. S. Curry, of Lynn, Massachusetts, was in favor of a lien law, and made a witty speech in its defense; D. W. C. Bellville, of Cincinnati, said the sub-contractor did not approve of a lien law; Warren G. Vinton, of Detroit, was in favor of a lien law; Stephen W. Wright, of New York, was against a lien law, and said that reputable builders generally opposed it; T. J. Kelly, of St. Louis, said that builders in that city did not want it, as also did C. J. Swayne, of Wilmington, Delaware; R. W. Jackson, of Portland, Maine, said the lien law of his state protected the rogue and not the honest builder; George C. Prussing, of Chicago, made the most comprehensive and forcible speech in favor of the abolition of all lien laws. After a protracted discussion, engaged in by almost every delegate present, the session adjourned.

THIRD DAY—MORNING SESSION.

The extended discussion upon lien laws, of the day before, had left a large amount of business to be transacted, the more important of which was the reception of reports from the several exchanges represented in the National Association.

Reports were received from the exchanges at Boston, read by J. A. Wingate; Baltimore, by C. L. Bartlett; Cincinnati, by J. M. Blair; Detroit, by W. J. Vinton; Grand Rapids, by M. Driggett, Indianapolis, Ind.; Buffalo, by W. D. Collingwood; Chicago, by Mr. Downie; Lowell, Mass., by Mr. Cogswell; Milwaukee, read by the secretary; Minneapolis, by George W. Libby; New York, by Marc Eidlitz; Omaha, by Mr. Eissing; Philadelphia, by George Watson;

Portland, Me., by R. W. Jackson; Providence, R. I., by Mr. Hathaway; Rochester, N. Y., by H. H. Edgerton; Saginaw, Mich., by Mr. Bringler; St. Louis, by W. M. Anderson, St. Paul; Wilmington, Del., by Mr. Reed; Worcester, Mass., by C. D. Morse; San Francisco, by Mr. Woodberry; Lynn, Mass., by P. S. Curry.

The reports in almost every instance showed the exchanges to be in a flourishing condition and using every precaution to preserve a high grade of character and ability among their membership. Owing to the stress laid on their integrity the increase in membership was not always as great as might have been desired; but though numerically, perhaps, the association could have wished to be stronger, it congratulated itself on the excellent moral condition of its members and their desire for right and justice to all. Several new buildings were reported and a desire expressed for close intercourse with other exchanges. Little dissent and few strikes were reported, and where they had occurred, the efforts of the exchanges had usually been found beneficial in bringing about settlements by arbitration. The lien law was spoken of favorably or unfavorably, according to the way the respective exchanges held it, all of which was amply spoken of in former issues of this paper.

At the conclusion of the reports from filial bodies the president introduced Professor Arthur Burnham Woodford, of the University of Pennsylvania and the Wharton School of Finance and Economy, who supplied the place of Mr. Edmund J. James, professor of Public Finance and Administration of the University of Pennsylvania, who was unable to be present. Mr. Woodford read a long and interesting paper upon "The Education of Business Men." The address was applauded at its conclusion and Professor Woodford was tendered a vote of thanks by the convention.

The Committee on Resolutions recommended that the resolution presented by the Indianapolis Exchange in regard to the mid-year meeting be referred to the executive committee.

The resolution presented by the Denver Exchange regarding the free coinage of silver, was deemed a matter beyond the province of the association, and the committee recommended that no action be taken.

OFFICERS FOR 1892.

The Committee upon Time, Place and Nominations reported in favor of St. Louis, February 7, 1893, and the following officers:

For president, Anthony Ittner, of St. Louis; first vice-president, Ira G. Hersey, of Boston; second vice-president, Hugh Sisson, of Baltimore; secretary, William H. Sayward, of Boston; treasurer, George Tapper, of Chicago.

Mr. Madden, of Chicago, spoke in favor of John D. McGilvrey, of Denver, for the office of second vice-president, but upon motion the secretary was instructed to cast one ballot for the entire ticket and time and place as reported by the committee.

BOARD OF DIRECTORS FOR 1892.

The following board of directors was appointed: Baltimore, Grover H. Creager; Boston, James A. Wingate; Buffalo, A. A. Bennich; Chicago, C. W. Gindele; Cincinnati, Samuel D. Tippett; Cleveland, E. Towson; Denver, A. J. Blake; Detroit, Alexander Schapoton; Indianapolis, James A. Garley; Grand Rapids, Michigan, P. C. Gailey; Kansas City, W. A. Kelley; Louisville, Kentucky, J. N. Strock; Lowell, Massachusetts, Charles B. Conant; Lynn, Massachusetts, Frank T. Kelly; Milwaukee, Paul Riesen; Minneapolis, George W. Libby; New York, Marc Eidlitz; Omaha, N. B. Hussey; Philadelphia, Stacy Reeves; Portland, Maine, N. E. Redlon; Providence, Rhode Island, William W. Batchellor; Rochester, New York, H. H. Edgerton; Saginaw, Michigan, Michael Wenkler; San Francisco, William N. Miller; St. Louis, J. Schellerton; St. Paul, J. W. L. Corning; Syracuse, New York, J. E. Baker; Wilmington, Delaware, S. Reed; Worcester, Massachusetts, C. Denoss.

It was announced that the per capita tax for the ensuing year would be $3. A resolution of thanks to the Cleveland Exchange for the entertainment provided delegates was passed, and after several matters of minor importance had been disposed of the convention adjourned to meet at St. Louis, February 14, 1893.

CONVENTION NOTES.

Architect Roy McDonald, of Louisville, who is building inspector of that city, was present at the convention of Building Inspectors.

In the New York delegation the absence of Marc Eidlitz, John J. Tucker and John Canda was marked, sickness preventing the former and business the latter from attending.

The Cleveland Association of Plumbers gave a reception to those of their craft among the delegates which was most interesting, many of the visitors addressing the assembly upon topics pertinent to the trade.

The Philadelphia delegation contained some new faces, the absence of Mr. David Woelleper was most noted until the last session when that gentleman appeared and was conspicuous at the banquet. Death during the year had taken from the exchange six of its most prominent members, several of them having been delegates to the national association conventions for several successive years. They are: John J. Weaver, William Gray, Mahlon Fulton, W. J. Peoples, William S. McGinley and Henry Coulomb.

The *Record and Guide*, of New York, and also the *Architectural Record* was ably represented by Mr. Louis Berg, a genial gentleman who made many friends for his journals among the delegates. *Carpentry and Building*, the official journal of the National Association of Builders, was represented by A. C. Garnsey. These, with THE INLAND ARCHITECT were the only journals represented. The Cleveland press gave a liberal amount of space to the proceedings of the convention, the *Plain Dealer* being represented by Miss Martha Houk, a young lady whose reports compared most favorably with those made by her masculine confrères.

There were not as many ladies present as at some former conventions, but the familiar faces of Mrs. E. E. Scribner, Mrs. J. Jarvis and Mrs. John Emery appeared in the gallery at several sessions, and there were also Miss A. C. Mulvy, of New York, and the Misses Chapalon, daughters of Delegate Chapalon, of Detroit.

A magnificent banquet was presented the visiting members. The menu card was a work of art and the toasts of the evening well chosen. Among the architects present on invitation were: Levi T. Scofield, F. S. Barnum, J. N. Richardson, F. A. Coburn, C. O. Arey, George F. Hammond, F. C. Bate, and others. The technical press was represented by Louis Berg, of the New York *Record and Guide* and *Architectural Record*, and R. C. McLean, editor of THE INLAND ARCHITECT. E. H. Towson, of the Cleveland Exchange, presented the speakers. Judge H. C. White responded to "Our Country, Our Whole Country, and Nothing But Our Country." Mayor W. G. Rose spoke of "The Forest City." "Our Guests, the National Association of Builders," was responded to by President-elect Anthony Ittner, of St. Louis. Architect A. F. Coburn, by a set of diagrams, illustrated "The Architect, a Designing Man." "Technical Education" was explained by Professor Cody Staley, and the speeches of the evening closed with remarks upon "The Building Contractor, His Responsibilities and His Rights," by the Honorable Virgil P. Kline. A pleasant incident of the evening was the presentation by Mr. John McGlensey, of New York, of an American flag to Judge White, on the conclusion of his speech on "Our Country." Mr. McGlensey's remarks were well chosen and awoke the patriotism of everyone present, and at the conclusion of his short speech he received the loudest cheers of any of the speakers during the evening.

Annual Convention of the National Association of Commissioners of Buildings.

THE third annual meeting of the National Association of Inspectors and Commissioners of Buildings was called to order January 19, at the Hollenden House, Cleveland, Ohio. First Vice-president Hazen, of Minneapolis, presided in the absence of President Damrell.

The members present were: Theodore Oster, Baltimore; B. F. Morse, Cleveland; J. M. Hazen, Minneapolis; Charles D. Supplee, Philadelphia; George L. Ward, Chicago; M. J. Fitchey, Indianapolis; L. G. Middaugh, Kansas City; R. McDonald, Louisville; E. W. Simpson, Detroit. A general discussion of the affairs of the association was first in order and then the following officers were elected: President, John S. Damrell, of Boston; first vice-president and secretary, John M. Hazen, of Minneapolis; second vice-president, B. F. Morse, of Cleveland; treasurer, T. Oster, of Baltimore.

The afternoon session was begun at 3 o'clock, Mr. Hazen occupying the chair, and Mr. Roy McDonald, of Louisville, acting as secretary. It was decided not to fix the time and place of the next annual meeting until it was known where the session of the National Association of Builders would be held. The following was addressed to the builders and conveyed to their meeting by Building Inspector Morse:

To the National Association of Builders: January 19, 1892.

GENTLEMEN,—The National Association of Commissioners and Inspectors of Buildings of the United States in convention assembled, respectfully call your attention to a resolution introduced by Captain John S. Damrell, of Boston, and unanimously adopted by this association at New York, February 13, 1891, as follows:

"*Resolved*, By the National Association of Commissioners and Inspectors of Buildings in convention assembled, recognizing as we do the great responsibility resting upon the inspector of buildings, appointed or elected to such a position, that in their appointment their qualification shall be competent and reputable architects, master builders, or mechanical engineers. Politics should not be considered in the appointment, and an inspector should hold office as long as he does his duty. And we, as an association, respectfully ask the National Association of Builders to use their influence to bring about the results asked for in the foregoing resolution."

The address was signed by all the officers of the association. The new members who reported at the afternoon meeting were: Messrs. Charles W. Peck, of Worcester, and E. G. Rueckert, of Cincinnati. Walter S. Pardee, ex-inspector of buildings at Minneapolis, was elected a member.

The following standing committees were appointed:

Statistics—E. W. Simpson, Detroit; Roy McDonald, Louisville.

Credentials—Charles D. Supplee, Philadelphia; E. J. Rueckert, Cincinnati; C. W. Peck, Worcester.

Auditing—L. G. Middaugh, Kansas City; T. J. Brady, New York.

Text book—E. W. Simpson, Detroit; L. G. Middaugh, Kansas City; Theodore Aster, Baltimore.

The time of the convention was largely devoted to the discussion of municipal building laws, fire-escapes, etc. Mr. Oster reported a new building law for Baltimore. Mr. Simpson reported a movement to that end in Detroit.

Mr. Simpson further said: "Among the other needs of the city were plumbing and electric wire inspectors. I believe it would be a good idea if this association would prepare a text book. For instance, in deciding upon the weight which may be placed upon floors, I find that authorities differ greatly as to the strength of materials. I believe there is enough talent in this association to prepare a text book that should stand as an authority in the country."

Mr. Simpson's motion to appoint a committee to prepare a text book prevailed.

Mr. Fitchey, of Indianapolis, said a number of defects existed in the building law of that city. In response to an inquiry as to precautions against loss of life at fires, he said he considered the ordinary iron ladder fire-escape a fraud, especially on buildings where

girls are employed. Not one girl in twenty would descend such a ladder, and better devices should be used. He liked the iron stairways very much better than the ladders.

Mr. Simpson said that fire-escapes should only be used as a last resort. If there was any other way of getting people out, he preferred to adopt it.

Mr. Fitchey, of Indianapolis, spoke of the advantage of giving fire-chiefs full authority in the correction of evils. Roy McDonald, of Louisville, spoke in favor of fire-escapes on school buildings and Mr. Hazen, of Minneapolis, said that in that city iron outside stairs were required on all school buildings. Mr. Oster said that the width of aisles in public buildings should be regulated and enforced. Mr. Middaugh said more people were overcome by gases and smoke than were burned. Mr. Hazen advocated skylights with very thin glass over elevator shafts in buildings and over the stages in theatres. The reason given for this was that the glass would break readily and allow the smoke to escape.

Inspector Morse spoke of the operation of the building law in Cleveland and Mr. Rueckert presented a similar report for Cincinnati. The inspectors appointed a joint committee to draft a building law, covering fireproof buildings, fire-escapes, inspection of plumbing and electric wires, metal lath, patent plaster and elevator shafts and adjourned to meet at St. Louis, February 15, 1893.

The Chicago Architectural Sketch Club.



THE general growth of the Chicago Architectural Sketch Club for the past year has been more largely in the line of increased usefulness than in increase in numbers, and the high rank attained and the respect shown the club by architects of the highest standing has been brought about by the persistent efforts of the club officers and members toward the highest grade of excellence. The art classes are well attended, the meetings for the consideration and discussion of papers attract as well as the occasional meetings for purely social enjoyment.

The officers and committees for the year 1892 are as follows: President, Charles A. Kessell; first vice-president, William E. Kleinpell; second vice-president, Arthur Heun; secretary, John E. Youngburg; treasurer, Ernest J. Wagner; executive committee, Charles A. Kessell, William E. Kleinpell, Arthur Heun, John E. Youngburg, Ernest J. Wagner, T. O. Fraenkel, Frank L. Linden; adjudicating committee, Norman S. Patton, Robert Fisher, Charles S. Frost; committee on artistic subjects, Ernest Albert, Arthur Dawson, Charles E. Boutwood; committee on Robert Clark testimonial, Dankmar Adler, chairman, Henry Ives Cobb, Lorado Taft, S. A. Treat, Prof. N. Clifford Ricker, W. G. Williamson, trustee.

The present membership of the club includes:

Active members — A. C. Berry, A. G. Brown, W. J. Beauley, W. J. Brinkman, R. A. Dennell, A. R. Durkee, F. L. Davis, John R. Dillon, Oscar Enders, T. O. Fraenkel, B. L. French, J. L. Fyfe, W. R. Gibb, Edward G. Garden, F. M. Garden, F. R. Hirsh, M. G. Holmes, Herbert E. Hewitt, W. W. Hompe, Arthur Heun, L. H. H. Heinz, J. Harder, A. E. Hoeppner, E. C. Jensen, C. A. Kessell, W. E. Kleinpell, F. L. Linden, J. Lilleskau, C. E. Lund, W. C. Lewis, J. A. Miller, Paul Mueller, W. B. Mundie, T. H. Mullay, A. B. Orth, Charles W. Obermeyer, F. Parmentier, D. H. Perkins, J. D. Raab, H. J. Ross, E. Roth, A. Y. Robertson, G. M. Russeque, A. R. Schlesinger, C. E. V. Stender, P. C. Stewart, R. E. Schmidt, G. A. Schonberg, R. E. Smith, C. B. Schaefer, H. F. Swansen, E. H. Seeman, H. C. Trost, C. W. Trowbridge, W. G. Williamson, R. B. Williamson, E. J. Wagner, J. Wechselberger, Stephen W. Wirts, John E. Youngburg.

Associate members — Dankmar Adler, D. H. Burnham, W. W. Boyington, W. W. Clay, L. B. Dixon, Robert Fisher, Charles S. Frost, Norman S. Patton, F. R. Schock, Clinton J. Warren, James R. Willett.

Honorary members — J. K. Allan, F. L. Blake, Robert Clark, Frank Enders, H. L. Gay, F. S. Hunt, W. L. B. Jenney, Harry Lawrie, L. Muller, Jr., R. C. McLean, D. G. Phimister, L. H. Sullivan, Lorado Taft, Fritz Wagner.

An interesting class in French has been instituted under the direction of M. Louis Tanty, and a class in water-color, black and white, and charcoal drawing, under the direction of Mr. Charles E. Boutwood, comprises most of the membership of the club.

Perhaps the very best syllabus ever arranged by the club, both in the practical work outlined and in the importance of those who will present the several papers in their particular field of work, is that arranged for 1892. It is as follows:

SYLLABUS.

DATE.	SUBJECT.	NAME.
1891.		
Dec. 14	Lantern Exhibit	W. A. Morse, of the Chicago Lantern Slide Club.
" 28	Business Meeting	
1892.		
Jan. 14	Classic Sculpture and its Relation to Architecture	Lorado Taft, Sculptor.
" 25	Business Meeting	
Feb. 8	Some Electrical Experiments	Chas. G. Armstrong, Electrical Expert.
" 22	Club Entertainment	
Mch. 7	Vanishing Points	Paul C. Lautrup.
" 27	Basis for an American Style of Architecture	Norman S. Patton.
April 4	A Visit to Pompeii (illustrated)	Prof. S. H. Peabody, Chief of Department of Liberal Arts, World's Columbian Exposition.
" 18	Paris as it was to the Student under the Third Bonaparte	W. L. B. Jenney.
May 2	Heat Practically Applied in Modern Buildings	I. Lincoln, Jr.
" 16	Plumbing Construction	W. S. Mac Harg, Engineer of Water Supply and Fire Protection World's Columbian Exposition.
" 30	Sketching Trip to World's Columbian Exposition Ground. Exhibition in evening	
Jun. 13	Practical Hints on Construction of Mercantile Buildings	John Meiggs Ewen.
" 27	Submit pertinent questions to the secretary, and they will be answered by	Dankmar Adler.
July } Aug. }	C. A. S. C. Sketching Trip. Time and place announced later	
Sept. 5	Castles of Louis II of Bavaria (illustrated)	A. R. Schlesinger.
" 19	Details	W. G. Williamson.
Oct. 2	A Few Reflections on Design	C. B. Atwood, Designer-in-Chief, World's Columbian Exposition.
" 16	Subject to be announced later. The ladies are invited	Lucy Fitch Perkins.
" 30	The Draftsman	Fritz Wagner.
Nov. 13	Annual Meeting — Election of Officers	
" 27	Seventh Annual Banquet	

The club competitions are as follows:

COMPETITION.

DATE.	SUBJECT.
Jan. 11	Club Seal.
" 25	Frontispiece for C. A. S. C. Catalogue.
Feb. 22	Public Drinking Fountain.
Mar. 22	Design and Artistic rendering from quotation to be given.
Apr. 18	Memorial Monument to John W. Root.
May 30th	Design embodying four columns in one of the orders.
June 27	Architectural Float for Procession of Centuries, Dedicatory Exercises, World's Columbian Exposition.
Sept. 5	Water Color sketch on Chicago River.
" 19	The prevailing local nuisances and their remedies. Drawing or Essay.
Oct. 16	A Draftsman's Ideal "Atelier."

1. Drawings to be mounted on bristol board, 18 x 24 inches, and delivered at the club rooms sealed (nom de plume), to be mailed to the secretary.
2. Seniors and juniors to enter into competitions without distinction. Juniors to be classified from their respective places.
3. In the competitions the style of finish and number of drawings are left to the discretion of the designer.
4. The "Robert Clark Testimonial" Gold and Silver Medal Competition to be announced in February and closed on October 1.

Premeated drawings to become club property.

CLASSIC SCULPTURE AND ITS RELATION TO ARCHITECTURE.

On January 14, Lorado Taft, sculptor, of Chicago, read a paper before the club upon classic sculpture and its relation to architecture.

This subject — the second on the syllabus of the club — was thoroughly illustrated by meaus of lantern slides, a very rare set of which Mr. Taft is possessor, and which he speaks of collectively as "Greek sculpture."

The impetus which has been given to classic sculpture and architecture since the location of the Exposition in Chicago, to building in general, is indicative of much diligent study and review among the Chicago Architectural Sketch Club members, who constitute a large majority of those directly interested in its execution, and Mr. Taft, who is at work on several groups that will embellish the Fair buildings, was importuned to appear before the club with his rare collection of slides. He was greeted with a large and enthusiastic audience that was completely captured by the "Lions of the Gate of Mycene," a pre-historic bit of early Greek sculpture demonstrating that, in their childhood as a nation, their art work was much like that of beginners at the present time; the heads in profile, and invariably the front view of the eye. Next was shown the metopes from Temple of Selinus, in Sicily. Here was evidence of the true Greek work, though executed in a colonial settlement. The whole was extremely crude.

Another slide exhibited the treasure house of Megara at Olympia, showing the first examples of a sculptured pediment. The subject of this was, "Battle of Giants and Titans," a favorite theme often repeated afterward. Following this was a tardy effort of sculpture from the temple at Ægina, 470 B. C., or only about thirty years before the construction of the Parthenon, yet far remote in quality. The attention was here called to a singular custom of those ancient

sculptors, in having all the warriors smiling even when writhing with intense physical agony. The metopes and tympanum groups from Zeus' temple at Olympia (460 B. C.) were shown to be fast approaching a higher standard but not yet free from crudity. The "Labors of Hercules," in metopes, were frequently three upright figures, and at a distance were indistinguishable from triglyphs.

Pedimental groups were next reviewed, showing the Conflict of Centaurs and Lapiths, another favorite subject afterward used on metopes of the Parthenon. Of these hideous subjects the Centaur was by many degrees the most undesirable combatant and in the engagements where he was the victor, his tail invariably fanned the breezes above him.

The audience, which to this point had been led through centuries of crude art by the speaker's eloquence, heartily coincided with the explanations offered, as the subjects were known to *be*, and the dates were not disputed. To those present to whom circumstances had permitted a technical education, the foregoing was a pleasant review. But when the Parthenon was reached (a beautiful slide) the authority which all draftsmen and artists worship was greeted with applause which reminded one of the drama where the recognized star appears suddenly, but later than expected — Parthenon, the culminating work of Athens' most glorious period, built in thirteen years (from 447 to 434 B. C.). So proud were the Athenians of the project that the whole city joined in the enthusiasm, and felt a moral obligation to contribute some personal effort toward its completion, even to the superannuated ass whose services had consisted of carrying material up the hill, and continued to climb the Acropolis, as if infused with the prevailing spirit, even when unable to carry a load. Seventeen views of the metopes followed, showing massing of light and shade, produced by intertwining figures, contrasting admirably in their sparkle and effect with the sharp cuts of the triglyphs, all different, each representing some event in contemporaneous history, yet so ingenious in composition that the various stories are told by the slightest variation in gesture or pose. Of the frieze twenty views were shown. It grows more interesting when we know what it means.

The procession in honor of Pallas Athena — a scene from real life in Athens — the gods present, noble Athenian maidens, old men, the offering, unruly cattle, the horsemen — the spirit of action is masterly portrayed here in stone. Finally, the great groups of the pediment — one almost entirely destroyed; of the other, the Birth of Athena, we have several precious fragments, though the principal figures are lost. Even the streams and geographical features of the place of action are admirably personified by means of allegoric figures. No grander poem was ever penned than this one in the blue marble of Pentilicos. We see in this masterpiece a unity of action, a rhythm of line, a beauty and dignity of treatment and a conscientiousness of finish which, though painstaking, was quite well suited to its distance, and furnishes a dozen qualities never equaled on such a scale in the history of art.

Contrast draperies of figures on the Parthenon with Thorwaldsen's compositions, or so-called masters of later periods. Notice the natural, clinging sparkle of the former as against later stone carving. It is not possible that one man did all the sculpture of the Parthenon; in confirmation of this there is a noticeable variation of merit in the groups, but very slight, however. We are children compared with those men, or, rather, bunglers and frauds. We do not know enough even to appreciate their tremendous achievements, much less to equal them.

On Monday evening, February 8, Mr. Charles G. Armstrong, the electrical expert of Chicago, entertained the club with "some electrical experiments." This was the first time that the Chicago Architectural Sketch Club has been "shocked," and the impression left by Mr. Armstrong with the conclusion of his programme will without doubt have an appreciable effect on the illumination of our city in the future. Mr Armstrong confessed his ignorance in a graceful manner as to what electricity was, but during the evening demonstrated its uses and abuses to the acme of efficiency. By means of incandescent and arc light wires connected with the Auditorium plant, a special switch board, containing all the modern electrical inventions incident thereto, and the modern lamps, fans, dynamos, etc., in use, the application of electricity as used today was thoroughly explained.

An interesting feature was the discussion that followed the paper, at the conclusion of which Mr. Armstrong was, by motion, extended a hearty vote of thanks.

On Monday evening, February 22, the Chicago Architectural Sketch Club will give an entertainment to club members, i. e., entertain each other, like good fellows. The event which has made this date famous will not be forgotten on the programme.



Houses of the Ancients.

THE diligence with which, in recent years, the work of excavating ancient cities and ruins has been prosecuted has given us much valuable information concerning the habits and household equipments of the earlier world, says Henri Watterson in the *Courier-Journal*, but it leaves still open that question, deeply interesting to students, scholars and antiquarians, if not to the general public, namely, whether the ancients attained a higher degree of civilization than the present generation possesses. That it is a problem that can never be decided does not check the discussion, nor does it detract from the interest that it excites among a special class.

Ignoring the comparative degree of intellectual developments attained by the ancients and the moderns, about which one could argue forever, the question of production in material matters affords more substantial basis for decision. For instance, we now have a very good idea of the construction and furniture of a Roman house, and it is easy to conjecture how the Roman citizen of wealth lived and had his being. Among the most interesting of these developments are the excavations of Roman Villas in England.

The history of the Romans in Britain is but fragmentary, but it is well known that the island was once one of the most important provinces of the empire. Hadrian visited it. Constantine was declared emperor by his soldiers at York, and the Romans fought to retain it with a courage and tenacity that showed their appreciation of its value. That the wealth and civilization of Britain have not been exaggerated by the conjectures of historical writers is now sufficiently proved.

At Woodchester, in Gloucestershire, a Roman villa of the grand type has been laid entirely bare, and the magnificence of its ruin shows that it was equal to many a modern palace, although this was merely the residence of a private citizen. Everything is on a great scale. There are sitting-rooms over fifty feet square, ranged about courts or gardens, themselves 150 feet square. The floors are splendid tesselated pavements; the walls are covered with fresco paintings, and scattered about are fragments of marble groups and statues, rich Samian ware, and numerous other evidences of art and luxury.

In Britain, as well as elsewhere, wherever Roman dominion long rested, enough is left to indicate that the wealthy Roman citizen had an ease and plenty that the world was unfamiliar with after the fall of the Roman empire, until the Venetian merchants began again to accumulate from every region the products of taste and luxury. Although the rich old Romans lacked some things that are modern inventions, yet their houses were in many respects superior to the best of today. They were larger, built with more solidity, and adorned with more taste and richness. Very few modern mansions, after one thousand five hundred years, would remain in as good preservation as are the Roman houses found in Britain. And if they reached such splendor in Britain, which was merely a province, what must they have been in Latium, which was the seat of empire?

The ancient architect planned and the ancient contractor built for all time. We'll wager our last sesterce that there were no Buddensieks in Rome. When Cicero gave a dinner party he did not stand in mortal fear of the roof falling in or the walls tumbling down on his guests. Seriously, when one contemplates the magnificent architecture of the Romans, whether expressed in houses, or bridges, or aqueducts, though exposed to the decay of many centuries, he cannot withhold admiration for the solid character of their work, nor can he avoid reflection that we Americans, and English, and Germans, and others have many things to learn that were known well enough two thousand years ago.

Where the Palmettoes Grow.

THE departure of Architect L. H. Sullivan to his cottage on the gulf coast for a month or two, exchanging perpendicular lines of structure and conventionalized leaf ornament for horizontal lines of horizon and the multiflora of a tropical wilderness is in a line with the wishes, if not the possible execution, of many an overworked architect. From early spring till late in the fall or midwinter the northern architect pursues the most laborious lines of thought and action of any of the professions, and soon the spring with its rush of work will be here and he has had no rest to recuperate from that of last season. Why not a trip to Florida? It is easy. Two magnificent lines of railroad, the "Monon Route" and the "Big Four" connect Chicago with Cincinnati. Here a change of cars is necessary, though in the same depot, and the picturesque "Queen and Crescent Route" is taken to Chattanooga. Here, if the traveler wishes, a day or two can be given to the battlefields on Lookout Mountain and vicinity, but there is no change of cars necessary before Jacksonville is reached. From Chattanooga the Eastern Tennessee, Virginia & Georgia Railway runs through the length of Georgia over the mountains in the north down through cottonfields and farms into the great piney woods where every breath seems to add a day to life, and the traveler but a day and a night from Chicago feels as though he had been enjoying a month's rest, so vitalizing is the air, and the roadbed smooth as any he is accustomed to travel over in the North.

At last Jacksonville is reached. Here he meets the only disappointment of his trip, for he will see a union depot through which more passengers are transferred than any similar station in the North, rivaling in decrepitude the Michigan Central terminus at Chicago. For a few minutes his professional instincts will be awakened, and he will figure on a million dollar depot, but only a few minutes, for he is now en route over the J. St. A. & H. R. R'y for St. Augustine. He knows all about the Alcazar and the Ponce de Leon, but he must see them, and he will spend days there and think he is studying architecture, when he is only yielding to the restful influences of the

climate, and, like the Argonauts, he feels as though the home and the busy life left behind was far away, and he does not care to even think of returning. Taking the cars again he seeks the wilderness; he wishes to see how a Florida town looked before the northern speculator reached it. And he finds all that he wishes at Daytona, on the Halifax river. The broad river with its line of live oaks and palmettoes beyond covering the slip of sand that separates it from the ocean, and then the ocean itself running free without bar or island, open to the shores of Spain. This little town with its live oaks, palmettoes and Spanish bayonet trees, its orange groves and its deep hammock land, will satisfy his longing for a lodge in some vast wilderness, and if he lodges with that genial, whole-souled Kentuckian, Captain Trainer, at the Ocean View Hotel, he will not complain of his lodging.

This is not a fancy sketch, but is advice that considerable sacrifice should be made at this season of the year to put in practice. The coming season will be an exceedingly busy one, and no matter how vigorous the constitution, the climatic conditions prevailing have some effect upon the nerve forces, and the cheapest, quickest and best relaxation a busy architect can indulge in, is a trip to Florida.

Association Notes.

GRAND RAPIDS SKETCH CLUB.

A sketch club composed of the draftsmen of Grand Rapids, Michigan, was formed at that city January 22. The officers are: President, George Lohman; vice-president, E. A. Rush; secretary and treasurer, Frederick S. Robinson. They will pursue the line of work usual with such organizations.

A MINNESOTA STATE CHAPTER A. I. A.

At a meeting held at the West hotel, Minneapolis, Minnesota, February 8, the preliminary organization for a Chapter of the American Institute of Architects was formed. Out of the thirteen members of the Institute in St. Paul and Minneapolis eight were present, and it was decided to form a Chapter, composed of members of the Institute as charter members, as these had passed the Institute form of examination, and invite all other reputable architects in the state to join under the Chapter's rules.

There were present at the meeting: D. Adler, of Chicago, secretary of the American Institute of Architects; W. W. Carlin, of Buffalo, president of the Western New York Chapter; R. C. McLean, of Chicago, editor of The Inland Architect; O. G. Traphagen, of Duluth; Fred Keyes, F. B. Loring, L. S. Buffington, H. R. B. Hamilton, J. C. Plant and E. S. Stebbins, of Minneapolis; John H. Coxhead, Cass Gilbert and C. A. Wallingford, of St. Paul. O. G. Traphagen, of Duluth, was made temporary chairman, and R. C. McLean, Chicago, secretary. After a general discussion, a resolution declaring in favor of the organization of a state Chapter under the rules of the American Institute was unanimously adopted. J. C. Plant, C. A. Wallingford and C. W. Whitney were appointed a committee to draft constitution and by-laws. Fred Keyes, H. R. B. Hamilton, L. S. Buffington, C. W. Whitney and C. A. Wallingford were appointed a committee on entertainment. The next meeting was fixed for 6 P. M., February 20, at the Windsor hotel, St. Paul.

Our Illustrations.

Nelson Hotel, Rockford, Illinois; Charles S. Frost, architect, Chicago.

Residence for C. M. Carter, St. Joseph, Missouri; Eckel & Mann, architects.

Design for residence of Dr. John H. Chew, Chicago; Treat & Foltz, architects.

Sheriff Street Market and Storage House, Cleveland, Ohio; Lehman & Schmitt, architects.

Residence at Highland Park, Illinois, for P. A. Montgomery; W. W. Boyington & Co., architects.

Residence of Dr. R. H. Babcock, Highland Park, Illinois; Irving K. Pond and Allen B. Pond, architects, Chicago.

Approved design, perspective and plan, for the Art Institute, Chicago; Shepley, Rutan & Coolidge, architects.

Approved design for West Virginia State Building, World's Columbian Exposition, Chicago; J. L. Silsbee, architect, Chicago.

Approved design for North Dakota State Building, World's Columbian Exposition, Chicago; J. L. Silsbee, architect, Chicago.

Approved design for Wisconsin State Building, World's Columbian Exposition, Chicago; William Waters, architect, Oshkosh, Wisconsin.

Approved design for the Wyoming Building, World's Columbian Exposition, Chicago; Van Brunt & Howe, architects, Boston and Kansas City.

Statue of Benjamin Franklin. Twenty-one feet high, placed at main entrance to Electricity Building, World's Columbian Exposition, Chicago; Carl Rohl Smith, sculptor.

Design for the completion of the Fair Building, Chicago, W. L. B. Jenney and W. B. Mundie, architects. This building when completed will occupy an entire half block on Dearborn, Adams and State streets, Chicago; 366 feet by 190 by 241 feet high; a steel skeleton construction, thoroughly fireproofed. About one-fourth of the building is completed and occupied, namely, from Dearborn street to middle of block on Adams street and on the alley, and for one-half the height. This portion has been built while the company were doing business in the block, the stock and customers being pushed one side while a piece was under construction. When this was four stories high, a temporary roof was put on, and the stock moved in and business proceeded as usual in these four stories while the stories above were under construction. By the use of electric lights, the work proceeded night and day. As an indication of the rapidity of the work, in three months and one-half from the time the stock was moved from an area of about 95 by 180 feet, four stories and basement were completed and under temporary roof, the stock moved back and business resumed. For further description of construction see Vol. XVIII, No. 4.

PHOTOGRAVURE PLATES.

(*Issued only to subscribers for the Photogravure edition.*)

Residence of John Van Voorhis, Rochester, New York.

Residence; Rotch & Tilden, architects, Boston, Massachusetts.

The Howe Residence, Hartford, Connecticut; William C. Brocklesby, architect.

Residence of Mrs. Barbara Armour, Lake Shore Drive, Chicago; Francis M. Whitehouse, architect.

Two Views of Construction of Mines and Mining Building, World's Columbian Exposition, Chicago; S. S. Beman, architect.

View of Construction of Administration Building, World's Columbian Exposition, Chicago; Richard M. Hunt, architect, New York.

View of Construction of United States Government Building, World's Columbian Exposition, Chicago; W. J. Edbrooke, supervising architect.

View of Iron Construction, Electricity Building, World's Columbian Exposition, Chicago; Van Brunt and Howe, architects, Boston and Kansas City.

View of Construction of Horticultural Building, World's Columbian Exposition, Chicago; W. L. B. Jenney and W. B. Mundie, architects, Chicago.

Section showing Iron Construction of Dome of Horticultural Building, World's Columbian Exposition, Chicago; W. L. B. Jenney and W. B. Mundie, architects, Chicago.

New Publications.

PAINTING IN OIL, A MANUAL FOR THE USE OF STUDENTS, by M. Louise McLaughlin. Cincinnati, Robert Clarke & Co.

The modest little book published under the above title deals only with the technical phases of the subject. The chapter on "Technique" treats of the way in which an artist should see and represent nature, of the limitations imposed by this media, of the changes introduced in recent years in method of laying on and mixing colors and obtaining luminous and natural effects without blurring and deadening the colors by too much mixing of pigments on the palette, of impasto, of use of brush and knife. The subject matter of the bulk of the book is clearly indicated by such chapter titles as "Harmony of Colors," contrasts versus harmonies; "Color in its relation to Lights and Shade," "Colors" being a detailed study of character, uses and permanence of individual colors; "Materials," dealing with makes, prices, etc.; "Palettes" for various purposes; desirable combinations and colors to be avoided. There are some phases of technique that can only be properly taught hand to hand; the writer recognizes this and does not seek to impart what in the nature of things cannot be done by the printed page. The treatment is straightforward throughout, the work is free from the irrelevant vaporings and rant so common to books on fine art, and the style is lucid.

A MOVE FOR BETTER ROADS. Essays on Roadmaking and Maintenance and Road Laws, for which prizes or honorable mention were awarded through the University of Pennsylvania by a committee of citizens of Philadelphia, with a synopsis of other contributions, and a review by the Secretary, Lewis M. Haupt, A.M., C.E., Professor of Civil Engineering, University of Pennsylvania. Also an introduction by William H. Rhann, chairman of the committee. Published by Henry Carey & Co., 810 Walnut street, Philadelphia. Price $2, sent to any part of the world.

The title of this book, comprising nearly 400 pages, clearly indicates its subject matter, and the contributors of the various papers, to whom were awarded the prizes offered by the University of Pennsylvania, Henry Irwin, B.S., C.E.; D. H. Berry, B.S., M.D.; James Bradford Alcott, not to name the others of equal note as men well appointed to treat of the important subject outlined by the university, is a sufficient guarantee that this book is one that ought to be in the hands of every board, committee or individual who is in anyway, directly or indirectly, interested in the matter of public highways, from a city street to a common country road. In a city the paving of streets has always been a question for serious discussion, and one that may be said to be always under consideration, but in the rural districts the roadways have been shirked by a common consent, and any time or expenditure bestowed upon them has been so reluctantly and grudgingly given that they might as well have been withheld. The residents of either can find profitable reading in this book, especially the latter, who pay a greater tax in the wear of animals, harness and vehicles for their poor highways than the sum of all the other taxes levied against them — a sum of wasted money that had a tithe of it been expended legitimately to the purpose would have paved or macadamed every foot of the highways from one end of the Union to the other, and made commerce upon them through all seasons of the year equable. Think of it. If a team can draw more than four times as much on a road with a foundation of large stone covered with rolled broken stone than it can on a common earth road in its best condition, what a saving of money in time and wear it suggests, taking into consideration it can always be done on the better road, while the earthen road is subject to a deterioration of its quality of use through the inclemency of the seasons down to the degree of zero. There is but little doubt this opportune book is the forerunner of a revolution in the public mind that will at no distant day manifest itself by a general application of its recommendations, particularly as it appeals, in a saving way, to the individual's pocket.

Mosaics.

A NEW architectural firm, "W. W. Carlin and John H. Coxhead, associated architects," upon the Buffalo list, may surprise the many friends of these well-known gentlemen, but all will wish the union of interests success. While St. Paul will lose Mr. Coxhead and Buffalo will gain a good architect, Mr. Carlin gains in quality while he represents the quantity of the concern. Buffalo may now be said to possess an architectural firm the largest in quantity and the best in quality in the United States.

THAT America is forging to the front in the fine arts is noticeable more perhaps in the department of bronze casting than in any other department. It is only a few years ago that bronze work of any significance was brought from Europe; but now our artisans have reached a degree of skill that enables them to reproduce whatever the designer and sculptor's inspiration has clothed with form. The many memorial statues erected throughout the country, any of them equal to the best contributed by European foundries, are in attestation of this declaration. Nor have these efforts been confined to statuary. Many beautiful panels and doors, the sole product of American genius, equally substantiate the truth of this progress in our higher art culture. Quite recently we had the pleasure of looking at a beautiful bronze door at the Chicago Exhibit Rooms of the Yale & Towne Manufacturing Company, made by that versatile establishment for the Gétty mausoleum, from the design of architects Adler & Sullivan. That the conception was appropriate and artistic needs hardly to be stated considering its origin, and it only remains to be added, the reproduction was all the most critical could desire. As a thing of beauty and merit it fully deserved all the encomiums that were passed upon it by the hundreds of admiring visitors who saw it during its limited exposition.

Building Outlook.

OFFICE OF THE INLAND ARCHITECT,
CHICAGO, February 10, 1892.

The projection of new enterprises of all kinds throughout the United States up to this writing shows that there will be as much building done this year as last. If this activity in projection continues for thirty days longer, it will be safe to make predictions with reference to the remainder of the year, and the predictions will be of a most favorable character. The returns from investments in manufacturing enterprises, in house, shop and mill building, and in all kinds of construction have been, up to this date, satisfactory, at least sufficiently so to warrant manufacturers, builders, promoters of new enterprises generally in pushing forward new work. The list of new enterprises from the first of January up to this time, show an increase over last year not only in the West, but in the East, and in the southern states. House building will be entered upon earnestly during the coming season; advices from large eastern cities confirm this statement. Chicago will, of course, take the lead this year as it did last. New York, Baltimore, Philadelphia and several other large cities exceed last year's record of expenditures for new houses. Equally encouraging reports have been received from authorities throughout the West. There will be special activity in Iowa, Minneapolis, Dakota, Colorado, and there will be increased activity in the mining interest of Montana, followed by a greatly increased use of lumber, iron, steel and equipments. It is very evident that the activity in new enterprises which has been in progress for some years in the South, will be continued. New cotton mills, sawmills, furniture factories, plate mills, planing mills and iron works will be built just as soon as material can be had. A great many contracts have already been placed for iron, steel, lumber, brick and inside finishing material. Architects are quite busy with plans for a large amount of new office building, millwork, private residences and general house construction. The manufacturers of building material report inquiries quite numerous for supplies for the coming year. Lumber manufacturers are already predicting a good year, but everywhere the complaint is made that prices will be low, and margins narrow. Iron and steel makers are also anticipating a good year, and the manufacturers of equipments and supplies into which iron and steel enters are already doing a good business. It is not probable that there will be a lower range of prices this year; neither is it probable that there will be much of an advance. The contracts now being made are being made at last year's quotations. The monetary situation is stronger than it has been for many years. Exports are heavy and prices strong. There is no surplus of production in any branch of trade. Europe wants all the wheat and other cereal products we can spare. Reciprocity treaties are preparing the way for an extension of American commerce. Capitalists feel safe to push investments in all lines of industry. We enter upon the new year under very favorable conditions.

Synopsis of Building News.

Architects are invited to furnish for publication in this department monthly or occasional reports of their new work before the letting of contracts. Reports of buildings costing less than $5,000 are not published.

Chicago, Ill.—Architects Crower & Richards: For J. W. Andrews, on Seventy-second street and Cottage Grove avenue, a three-story flat building; to cost $7,000. For Messrs. Bass, Kessler & Ennes, near the Grant Locomotive Works, two two-story and attic dwellings; to have stone foundations, sanitary improvements, and cost $8,000. For Doctor Strickland, on Forty-first street and Ellis avenue, additions to residence; to cost $5,000.

Architect Oscar Cobb: Business block and theater to be erected at Warsaw, Wisconsin. It will be a two-story business block, to contain stores and offices, and the theater will be a three-tier house fitted up with all the improvements; cost $100,000.

Architects Lamson & Newmann: For T. Kennedy, on Adams street near Wood street, a three-story flat building; size 24 by 80 feet; to cost $12,000; brownstone front, hardwood finish, etc. For M. Clancy, on Oakley avenue near Jackson street, a three-story flat building, of pressed brick and stone front, gravel roof, copper bays and cornices; cost $10,000.

Architect J. W. Ackerman: For J. W. Ulm, at 50 Sherman street, remodeling and five-story rear addition; to cost about $28,000; to be used as a hotel; pressed brick and stone, marble and tile work, electric bells and electric light.

Architects Wilson & Marble: For Edwin J. Bowes, on Oakenwald avenue near Forty-fourth street, a four-story flat building; 25 by 70 feet in size; to cost $25,000; stone front, gravel roof, electric bells, speaking tubes, etc. For the same owner on York street, a three-story flat building, of Bedford stone front; to cost $10,000. For Jacob Kramer, on Hoyne avenue near Madison street; a four-story flat building; size 35 by 80 feet; to cost $20,000; it will have copper bays and cornice, gravel roof, electric bells, speaking tubes, stained, plate and beveled glass, etc.

Architect Alfred Smith: For C. Carpenter, at Park Ridge, a two-story frame residence; to have stone basement, sanitary plumbing, furnace, etc.

Architects Ostling Bros.: For F. O. Peterson, at 226 Cleveland avenue, three-story addition, of pressed brick and stone; gravel roof, sanitary plumbing, galvanized iron bays; cost $10,000. For O. Stobberg, at 687 Orchard street, a three-story flat building, of pressed brick and stone; to cost $8,000. For John Peterson, at 274 Dayton street, a three-story flat building; to cost $6,000; pressed brick and stone front, gravel roof, etc. For A. E. Strand, at 150 May street, a three-story flat building; 22 by 75 feet in size; to cost $12,000; pressed brick and stone front, gravel roof, galvanized iron bay windows, electric bells, speaking tubes.

Architect L. G. Hallberg: For S. S. Sherman, on State street near Burton place, a three-story residence; to cost $12,000; it will have a stone front, gravel roof, hardwood interior finish, plate and beveled glass, electric bells, speaking tubes, etc. For J. B. Inderrieder, on State street near Burton place, a four-story residence; to cost $20,000; the front will be of stone with slate mansard and gravel roof, the interior to be finished in hardwoods, copper-work, beveled and plate glass. For W. L. Potter, on Hampden court, a three-story residence; of stone front with gravel roof, hardwood interior, plate and beveled glass; cost $10,000. For J. W. Peterson, on Halsted street near Belmont avenue, a three-story flat building; size 40 by 60 feet; to cost $15,000; stone front, gravel roof, all sanitary and modern improvements.

Architect William Thomas: For A. W. Crawford, on Harrison street near Leavitt, a three-story store and flat building; to be of pressed brick and stone front, have gravel roof, sanitary plumbing, heating, etc.

Architect W. L. Carroll: For Capt. J. L. Higgie, on Ellis avenue, a two-story barn, of pressed brick and stone, slate roof. For Capt. G. W. Flood, on Albany avenue, near Warren avenue, a three-story flat building, of pressed brick and stone front, gravel roof; cost $8,000. For Patrick Quinn, on Huron street corner of Clark, a two-story store and flat building, to have a front of pressed brick and stone. For A. D. Berry, at 28 Best street, a two-story flat building, to have all the sanitary improvements, furnace, etc., and cost about $6,000.

Architects Treat & Foltz: For Anthony Schmitt, on forty-second street, Lake avenue and Greenwood avenue, a four-story apartment house, to cost about $200,000; Bedford stone front, hardwood finish, hot-water service, marble wainscoting and tilework. They are also letting contracts on the "Kenwood" apartment house to be erected on Forty-ninth street, Lake and Washington avenues; work will be commenced at once. For the Western Electric Company on Clinton street, a seven-story building, to have a frontage of 320 feet; the front will be of pressed brick and stone, the building to be of fireproof construction and will be connected by bridges to the present establishment. For C. Ware at Kenilworth, a two-story frame residence, to have stone basement, hardwood finish, sanitary plumbing, furnace, etc.; cost $6,000. For John Coughlan, on Macalister place, a three-story and basement flat building of pressed brick and stone front; size 50 by 70 feet; to cost $16,000. For J. H. Ferris, on Deming court, a three-story residence of stone front with slate mansard; cost $15,000. They also made drawings for a one-story addition and remodeling building at 201 Fifth avenue near Adams street, for the occupancy of the Pinkerton Detective Company.

Architects Small & Bishop: For J. H. Geisler, on Fifty-sixth street near Peoria, a two-story residence 25 by 50 feet in size; to have stone front, electric bells, speaking tubes and all improvements, and cost about $8,000.

Architects J. F. & J. P. Doer: For L. Meyer, on Cottage Grove avenue, 150 feet north of Sixty-seventh street, a three-story flat building, 50 by 80 feet in size; to cost $12,000; the front will be of pressed brick and stone, with gravel roof, sanitary plumbing, electric bells, speaking tubes and all improvements. For C. Tolman & Co., on Calumet avenue and Thirty-ninth street, five three-story residences; to cost $40,000; they will have handsomely designed rockfaced stone fronts with copper dormer slate mansards, gravel roofs, all hardwood interiors, plate and beveled glass, electric bells, speaking tubes. For J. A. Geissman, they planned a three-story apartment house, 75 feet front by 80 feet deep; to cost $25,000; the first story will be of stone, and above of light-colored pressed brick, with copper bay windows and ornamental cornice and gravel roof, the interior to be finished in hardwood, and all the improvements will be put in. For Frank B. Laws, at 288 to 292 Fifty-fifth street, three four-story store and flat buildings, to be of buff Bedford stone front, with gravel roof, hardwood finish, sanitary plumbing, etc.; cost $35,000. Messrs. J. F. & J. P. Doer will build themselves two very attractive looking residences at 4920 and 4926 Champlain avenue; the fronts will be of Bedford stone, with stone bay windows, copper cornice, slate mansard, gravel roof, stained, plate and beveled glass, hardwood interior finish, and all the latest sanitary and modern improvements will be put in.

Architects Edbrooke & Burnham: For S. Wedeles, at 4918 and 4920, a two-story flat building, of stone front, gravel roof, etc. Also made drawings for remodeling Chapin & Gore building, at 73 Monroe street. For N. E. Gary, at Wheaton, a three-story frame residence, to have stone basement, all improvements; also two-story barn. They are also finishing the Groveland apartment house, on Thirty-first street and Groveland avenue.

Architects Blitz & Marshall: For Judkins & Co., at Cragin; a four-story factory, of pressed brick and stone with gravel roof; cost $20,000.

Architect L. B. Dixon: For J. B. Stubbs, on Calumet avenue near Thirty-fourth street, a three-story residence; size 21 by 76 feet; to cost $10,000. The front will be of stone with slate roof, hardwood finish.

Architect Ira C. Saxe: For E. C. Spinney, at Woodlawn, a two-story flat building; 50 by 50 feet in size; to cost $10,000; pressed brick and stone front, gravel roof, sanitary plumbing, etc. For M. O'Sullivan, on Drexel avenue near Sixty-seventh street, a two-story flat building, of pressed brick and stone; to cost $10,000.

Architect Perley Hale: For Mathews & Reynolds, on Calumet avenue near Thirty-sixth street, three three-story residences; to have rockfaced stone fronts, gravel roof, hardwood finish, stained and plate glass and all sanitary and modern conveniences; they will cost $20,000. For George Case, he planned two two-story residences, to be erected at Auburn Park. They will have stone fronts, hardwood interior finish, electric bells, speaking tubes and all sanitary improvements. For A. White, on Oakenwald avenue near Forty-third street, a four-story apartment house; 100 by 60 feet; to cost $75,000; the front will be of brown and Bedford stone; steam heat and all improvements will be put in. For J. D. Horton, on Fifty-fifth and Stewart avenue, six three-story flats, 117 feet front; to cost $60,000; stone front, etc.

Architect J. E. O. Pridmore: For Mrs. L. L. Tabor, on Cottage Grove avenue near Forty-first street, a four-story and basement store and flat building; to cost $20,000; it will have a handsome stone front with copper bay windows and cornices, gravel roof, electric bells, speaking tubes, gas ranges, electric light, etc.

Architects Parke & Purssell: For A. Puster, at 1563 Monroe street, a two-story and basement flat building, of stone front with gravel roof, sanitary plumbing, etc; cost $6,000. For John Healey, on Madison street near Campbell avenue, a four-story store and flat building; to be of pressed brick and stone front, have gravel roof, electric bells, speaking tubes, etc.; and cost $12,000.

Architect W. R. Gibb: For Chatroop estate, at 79 and 81 South Jefferson street, a six-story factory; of light pressed brick and stone front; to cost $25,000. For John Ramback, at 412 South Troy street, a three-story flat building of pressed brick and stone front, gravel roof, sanitary plumbing, etc.; to cost about $6,000.

Architects Huehl & Schmid: For Paus Brothers, on Clark street and Evanston avenue, a four-story store and flat building; to have two fronts of 100 and 165 feet respectively; pressed brick and stone with copper bays, brownstone and terra cotta, gravel roof, electric bells, speaking tubes, hardwood finish; cost $50,000; there will be offices on the second floor.

Architects Jaffray & Ohrenstein: For John Taggert, on Wolcott street near Wilson avenue, Ravenswood, two double three-story and basement flat buildings, of 45 by 67 feet each; to cost $25,000; they will have very neatly designed fronts of pressed brick and stone, with copper bay windows and cornices, the best of sanitary arrangements, furnaces, electric bells, speaking tubes, etc.

Architects Beers, Clay & Dutton: For Montgomery Ward, on Forty-seventh street, between Kimbark and Woodlawn avenues, three three-story residences; to have stone and pressed brick fronts, hardwood finish, electric bells, speaking tubes, heating, electric light, etc.; cost $20,000. For E. E. Smith, on

Fifty-fifth street and Washington avenue, a two-story residence, 42 by 51 feet in size; to cost $15,000; the first story and basement will be of stone, and above of pressed brick with slate roof; there will be also a two-story barn of pressed brick and stone.

Architect J. W. Van Osdell: For William Dorris, on Jackson boulevard east of Aberdeen street, a three-story double flat building, of pressed brick and stone front, with galvanized iron bay windows, gravel roof, electric bells, speaking tubes, etc.; cost about $20,000.

Architect W. G. Barfield: For J. C. Scales, on Lincoln and Edson avenues, a two-story store and flat building, of pressed brick and stone front, with galvanized iron bays, and all the sanitary arrangements; cost $12,000.

Architect Eugene Bivert: For Alexander Watson, at Riverside Lawn, a two-story basement and attic residence; to be constructed of Indiana greenstone all round, have hardwood finish, electric bells, speaking tubes, all improvements, and cost $11,000. For George O'Brien, on East Indiana street near St. Clair street, a four-story and basement flat building; to cost $12,000; the front will be of pressed brick with stone trimmings, gravel roof and slate mansard, galvanized iron bays and cornice; cost $15,000.

Architect J. L. Merriam: For Andrew Pierson, on Cottage Grove avenue, near Thirty-ninth street, a four-story store and flat building, of pressed brick and stone; cost $20,000.

Architect George W. Maher: For Professor James Gill, at Kenilworth, a two-story suburban frame residence; to have stone basement, hardwood interior, electric bells, speaking tubes, furnace, etc.

Architects Kaiser & Co.: For Joseph Gonyon, on the northwest corner Polk and Francisco streets, a three-story flat building, of pressed brick and stone front, gravel roof, etc.; cost $9,000. For Fritz Mink, on California avenue, near Congress street, a three-story store and flat building, of buff Bedford stone front; cost $10,000. For B. Krusch, on Spaulding avenue near Nineteenth street, a double two-story house, of pressed brick and stone front, gravel roof and all the sanitary improvements. For M. Murphy, on Flournoy street near California avenue, a two-story flat building, of pressed brick and stone front. For Captain P. W. Murphy, on Harrison street near California avenue, a three-story and basement flat building; to have a stone front, gravel roof, sanitary plumbing; cost about $10,000.

Architect W. D. Cowles: For Marks Nathan, on Twenty-sixth street near Cottage Grove avenue, a three-story store and flat building; size 50 by 70 feet; cost $15,000; pressed brick and stone front, copper bay windows, etc. For E. D. Murray, on South Chicago avenue, near Cottage Grove avenue, a four-story store and flat building; size 60 by 55 feet; to be of pressed brick and stone front, with stone bays, gravel roof, etc.; cost $15,000.

Architects Stiles & Stone: For D. E. Evans, on Oglesby avenue, south of Sixty-first street, a three-story flat building; size 50 by 60 feet; cost $18,000; pressed brick and stone front, gravel roof, etc. For J. S. Washburn, on Michigan avenue and Fifty-fifth street, a four-story apartment house; size 40 by 75 feet; cost $20,000; cut stone front, gravel roof, marble entrance, etc. For J. B. Edwards, on the southwest corner of Sixty-second street and Madison avenue, an eight-story hotel; cost $90,000. For a stock company, a five-story and basement apartment house; to have a front of 280 feet; cost about $200,000; to be erected on Sixty-fifth street, within 100 feet of Stoney Island avenue, facing north, running back 125 feet to Grace avenue; basement and first story to be of cut stone, and above of gray pressed brick and stone; it will be used as a hotel during the World's Fair. For Mrs. A. F. Davis, on Forty-fourth street, near Drexel boulevard, a three-story flat building, of stone front; cost $10,000.

Architect C. H. McAfee: For J. Smith, on the southeast corner of Jackson and Leavitt streets, a block of nine three-story flats of pressed brick and stone fronts, to cost $25,000. For Thomas Bryant, on Van Buren street near Centre avenue, a three-story factory, of pressed brick and stone; cost $10,000. For Martin De Tamble, on Trumbull avenue near Twenty-fourth street, a two-story flat building, to be of pressed brick and stone.

Architects W. W. Boyington & Co.: For Messrs. Higgins & Furber, on the southeast corner of State and Washington streets, the Columbus office building. It will be fourteen stories, basement and attic, 90 by 100 feet, cost about $800,000. To be of stone and terra cotta, steel construction and absolutely fireproof. The building will be surmounted by a tower 240 feet in height, at the top of which will be a glass globe which will be lighted by a 3,000 candle power electric lamp. The style of architecture is Spanish Renaissance, highly ornamented with handsome pictures in glass mosaic, representing the landing of Columbus and presentation at the court of Isabella; there will also be the various coats of arms of Spanish royalty to be introduced in the cornices and elsewhere; work will be commenced May 1, and the building will be completed by May 1, 1893.

Cleveland, Ohio.—The severe cold weather we have had throughout January has put a "quietus" on schemes just coming to light, but the outlook seems bright for the coming year.

YEAR 1891.

2,757	permits	granted	for	new frame	$3,045,832
144	"	"	"	brick and stone	1,779,860
1,561	"	"	"	alterations	775,291
4,462				Total,	$5,600,983

Cincinnati, Ohio.—Reported by Lawrence Mendenhall: In the latter part of December a fall of snow covered trees, ground and uncompleted structures alike with a mantle of white. Its melting caused many a roof to leak and many an owner to sigh, while the freezing after-weather effectually stopped for many days all building operations. This rest gave the contractors a chance to figure up their gains, for I can safely say that the year has been generally profitable. Reliable contractors generally figure that way, and let us hope that owners will find that the cheapest are not always the best. Our Builder's Exchange has taken new quarters, and has kept up its record in always growing and changing for the better. Several other trade organizations have leased from the Exchange, certainly advantageous to all. The entire second floor of the Grand Opera House building will for five years be the home of our association. The congress of builders composed of *all* the building trades is now well organized, and if strikes are inaugurated, the promoters of such asinine methods will probably strike a good-sized snag. Let our motto be: "With malice toward none, and charity toward all."

Architects Samuel Hannaford & Sons report plans for the remodeling of the old Y. M. C. A. building into stores and offices. Many modern improvements will be introduced. Also for the H. & S. Pogue Company a stone store building, 35 by 200 feet, probably seven stories high, and to contain all modern improvements. Also the remodeling of a portion of the Grand Hotel; building of a new entrance, halls, tiling, elevators, etc. Also for Leopold Fecheimer, four stores, three stories high, the second and third floors to be used as flats; materials to be pressed brick, with stone trimmings.

Architect J. J. Reuckert reports: For Joseph Kleine, residence; materials: stock brick, stone trim, slate roof, gas, plumbing, stained glass, etc.; cost $7,000.

The profession extend a welcome to Charles C. Taylor, who has opened, at 245 West Fifth street, an office for himself, after a service of several years under the careful tutelage of John H. Boll. He reports a block of buildings for the John Henry estate at Toledo, Ohio; materials: frame, stone, slate roof, plumbing, gas, blinds, etc.; cost $30,000.

Architect W. W. Franklin reports for Mr. Edward Kress, 119 Wade street, a residence; materials: pressed brick, slate roof, hardwood finish, stained glass, gas, plumbing, laundry, mantels, etc.; cost $6,000.

Architect A. O. Elzner has drawn plans for a house for Christian Boss; materials: pressed brick, slate roof, gas, plumbing, stained glass, laundry, etc.; cost $12,000.

Architects Nash & Plympton have prepared plans for a house for Mr. H. K. Smith; materials: brick, frame, slate roof, gas, plumbing, furnace, etc.; cost $4,000. Also a residence (address architects); materials: pressed brick, slate roof, blinds, stained glass, gas, plumbing, mantels, furnace, etc.; cost $12,000. Also a row of six residences (address architects) in Covington, Kentucky; materials: brick, stone, slate roof, furnace, mantels, gas, plumbing, etc.; cost $24,000.

Architect George W. Vogel reports for Mrs. Col. George Washington, Newport, Kentucky, a residence; materials: pressed brick, slate roof, furnace, blinds, hardwood, mantel, etc.; cost $8,000.

Architect James W. McLaughlin has secured the commission to prepare the plans for the Ohio State Building at the World's Fair at Chicago; cost $30,000. Also for Dr. F. A. Hunter, 143 West Seventh street, a residence; materials: brick and stone, slate roof, furnace, hardwood, mantels, gas, plumbing; cost $4,000. Also remodeling the building occupied by the George W. McAlpin Company of a general character; cost $15 000.

Detroit, Mich.—Architects A. C. Varney & Co.: For William Lemane, a two-story frame residence; cost $5,000. For J. W. Hallett, a two-story frame residence; to be built on corner of Hancock and Hastings streets; cost $5,000.

Architects John Scott & Co.: For the Detroit Electrical Works, a three-story brick addition to factory on Woodward and Baltimore avenues; size 120 by 136 feet; cost $20,000. For I. E. Boomer, a two-story brick residence, on Hancock avenue, near Fourth street; cost $5,400.

Architect George E. Depew: For C. L. Laurence, a two-story frame residence, on corner of Mount Elliot avenue and Congress street; cost $5,000. For Mrs. Emily Smith, four two-story frame dwelling houses, on corner of Dalzelle and Twelfth streets; cost $8,000.

Architect E. A. French: For Charles Times, a two-story brick residence; cost $8,000. For F. L. Seitz, a two-story brick living barn, on Wayne and Michigan avenues; cost $6,000.

Architect W. B. Stratton: For Mrs. E. Parkinson, a two-story brick residence, on Warren avenue and Woodward street; cost $5,100.

Architect John R. Smith: For Thomas Hislop, a two-story brick and stone residence; cost $5,200.

Architects Malcombson & Higginbotham: For the Disciples of Christ Society, a brick church, at Ada, Ohio; cost $15,000. For Walter S. Harsha, a two-story brick store, on corner of Cass and Larned streets; cost $5,000. For the Board of Education, a twelve-room brick schoolhouse; to be built on corner of Concord and Merrick avenues; cost $40,000.

Architect Ed. C. Van Leyen: For A. S. Kinney, a two-story brick residence, on Fourth and Abbott streets; cost $5,000.

Arcbitect J. E. Mills: For Joseph M. Flynn, a two-story frame residence, on Blaine avenue near Woodward; cost $5,000.

Louisville, Ky.—Architect H. Wolters reports the following: Louisville Baptist Orphan's Home; cost $26,000; located on First and St. Catherine streets; to be of brick and terra cotta trimmings, steam heat, metal roof and three stories in height. Southern Baptist Theological Seminary; cost $60,000; to be of brick and stone, steam heat, metal roof, and two storys in height; location on Broadway between Fourth and Fifth streets. A store building for Mrs. I. H. Bloom on Fourth avenue between Green and Walnut streets; cost $65,000; pressed brick front, electric light, mill construction, to be four stories in height. Vestibule for Temple Adas Israel; location, Sixth street and Broadway; cost $7,000; of brick and terra cotta.

Architects Drach & Thomas: A residence for Mr. R. H. Otter, to have stone front, slate roof; located on Fourth avenue between Magnolia and Hill streets; cost $10,000; three stories in height, size 40 by 70 feet. Sunday school and lecture room for Settle Methodist Church, Owensboro, Kentucky; cost $12,000; to be of brick, slate roof, stained glass, etc.; to be heated by steam. Consolidated Lodge Building, Grand United Order of Odd Fellows; cost $22,000; located on Thirteenth and Walnut streets; three stories, to be of brick; size 70 by 90 feet. For Mrs. Burwinkle, two-story frame building; location Brook and Burnett avenues; cost $3,000; to have metal roof.

Milwaukee, Wis.—John Frank will erect a three-story flat building, brick; cost $15,000. W. Rosenbaum will build a two-story frame residence; cost $5,000.

The design of Henry Ives Cobb, of Chicago, for the new city hall, has at last been chosen by the committee; and although some objection is raised on account of a local architect not having been selected, we believe the council will, in the end, accept Mr. Cobb's plans.

Pittsburgh, Pa.—Architect Frederick Sauer has prepared plans for an eight-story store and office building, to be built on site now occupied by Childs & Co.; contracts not let.

The Oak Alley R. P. Church are considering plans, etc., for a new church building, to be erected as soon as site can be obtained.

Architects Riddle & Kearn: For H. H. Dougbty, a two-story frame residence; to cost $5,000.

Architect Charles Bickel has prepared plans for the new south side market house; it will be two stories high with a tower of 110 feet; size 177 by 75 feet; brick and stone trimmings; estimated cost about $35,000.

The Pittsburgh *Press* is having plans drawn up for a new twelve-story office building, which they expect to erect in the spring.

Salt Lake City, Utah.—The stringency of the money market has had its effect here as elsewhere, and building matters have been quite quiet here for the nonce. But things generally are commencing to assume their "pristine condition" as of yore—or rather, as of last year—and many projects abandoned for the time are being taken up, to go right through. The delightfully uniform climate here permits the beginning of building operations here much earlier than in many southern climes, and, altogether, the present year promises to be a good one for Salt Lake City. The city has recently disposed of bonds to the amount of $300,000, and proposes to expend the entire sum in the erection of additional school buildings. Plans are now being prepared by several architects, and it is expected that the buildings will be model ones, complete in all respects as regards heating and ventilation (that harmless bugbear), of which several systems will be tried. J. F. Millspaugh, superintendent board of education, can give all particulars.

Among the architects, whose names are legion, the following is a synopsis of work under way and projected:

Architect R. Kletting: For Brigham Young Trust Company, a four-story and basement store and office building; size 57 by 89 feet; pressed brick and stone fronts; to cost $30,000; Salt Lake Building Company, contractors. For City of Salt Lake, addition to Eleventh District school, to cost $15,000; receiving bids. For Lehi, Utah, a school building, to cost $15,000; receiving bids. For Pleasant Grove, Utah, a school house, to cost $10,000. For Springville, Utah, a bank building and block of stores, to cost $25,000; preparing plans. For Castella Springs Company, Messrs. Southworth Brothers, proprietors, a hotel complete in all appointments, to cost $20,000; contracts let. Preparing sketches for an office building, to cost $100,000.

Architects Thompson & Weigel: For Messrs. Ingersoll & Simundi, a four-story apartment house; size 75 by 90 feet; to cost $35,000; contractor, Joseph Dietrich; under way. For St. Mark's Hospital, a three and four-story brick and stone building, to cost $30,000; preparing drawings. For a syndicate company, a new opera house, to cost $100,000; preparing sketches.

Architect Fred A. Hale: For C. E. Davis, stone and frame residence, to cost $18,000. For H. C. Balch, Laramel, Wyoming, residence, to cost $8,000. For Rock Springs, Wyoming, Congregational church, complete, to cost $70,000.

Architects Dallas & Hedges; For G. J. Brooks, "Arcade," store and apartment building; size 165 by 232 feet, four stories; stone fronts; to cost $200,000; J. Stephens and White & Shea, contractors.

Architects Monheim, Bird & Proudfoot: For Joseph Jennings, a residence; cost $15,000; under way. For James Dinwoody, a two and a-half story brick and stone residence; hardwood finish, complete with all modern conveniences; cost $12,000. For Masonic Lodge, a temple building; cost $60,000; preparing sketches.

Architect George F. Costerisan: Odd Fellows Hall; brick and stone; cost $35,000; J. H. Bowman, contractor; under way.

Architect Thomas Hayes of Minneapolis, Minn.: For First Congregational Church, of Salt Lake City; a rock-faced stone church, size 70 by 120 feet; cost $45,000; William Lister, contractor.

St. Louis, Mo.—J. J. Holt will erect a two-story residence; brick and stone; size 32 by 50 feet; cost $10,000. J. Lumsden will build a three-story store and flat building; brick; cost $12,000; contractor, A. Meglitsch. The Rialto Realty Company will erect a ten-story office building; brick, with stone foundation; cost $270,000; contractors, Goesse & Remmus. The congregation of the Church of God will build a one-story church, size 42 by 72 feet; brick; cost $5,000.

Architects L. C. & W. M. Bulkley: For D. L. Newman, three three-story residences, size 60 by 40 feet; brick with stone foundation; to cost $17,000.

Architect J. H. Randall: For Mrs. A. J. McCarty, a two-story residence, size 29 by 48 feet; brick and stone; slate roof; cost $8,000. Also for H. A. Loevy, a two-story brick residence, size 28 by 48 feet; to cost $5,000.

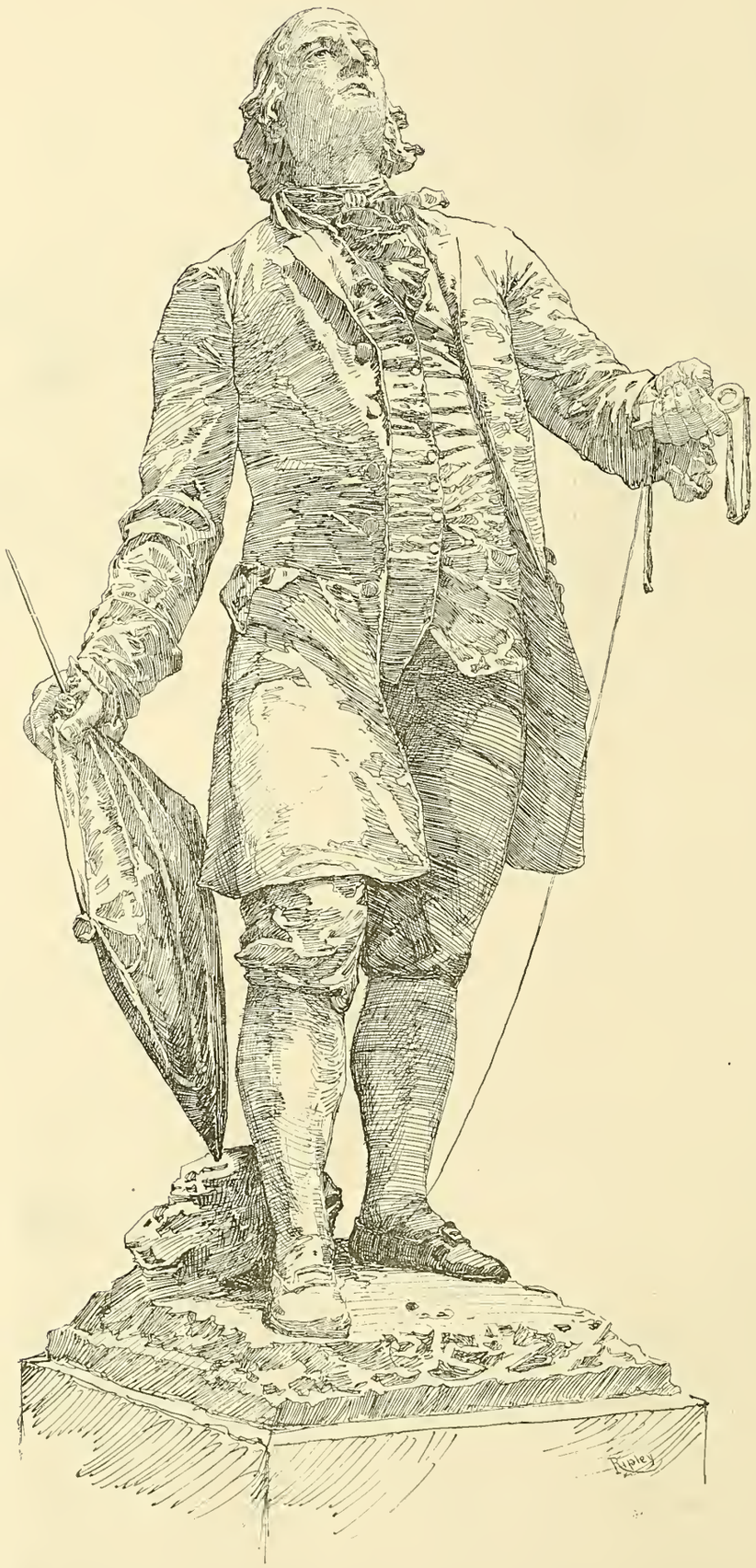


THE HOWE RESIDENCE, HARTFORD, CONN.
WM. C. BROCKLESBY, ARCHITECT.



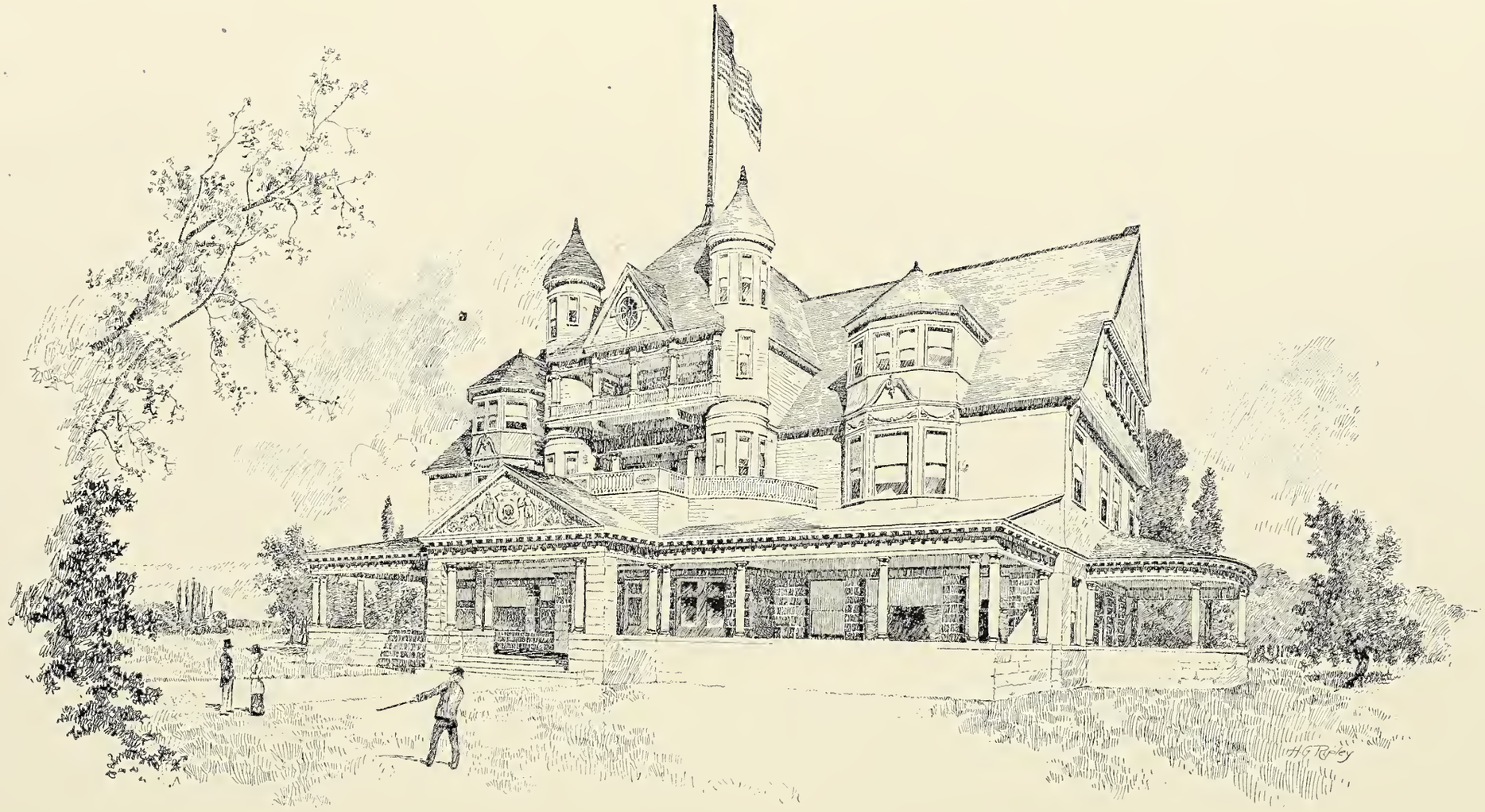
INLAND ARCHITECT PRESS.

RESIDENCE OF JOHN VAN VOORHIS, ROCHESTER, N. Y.



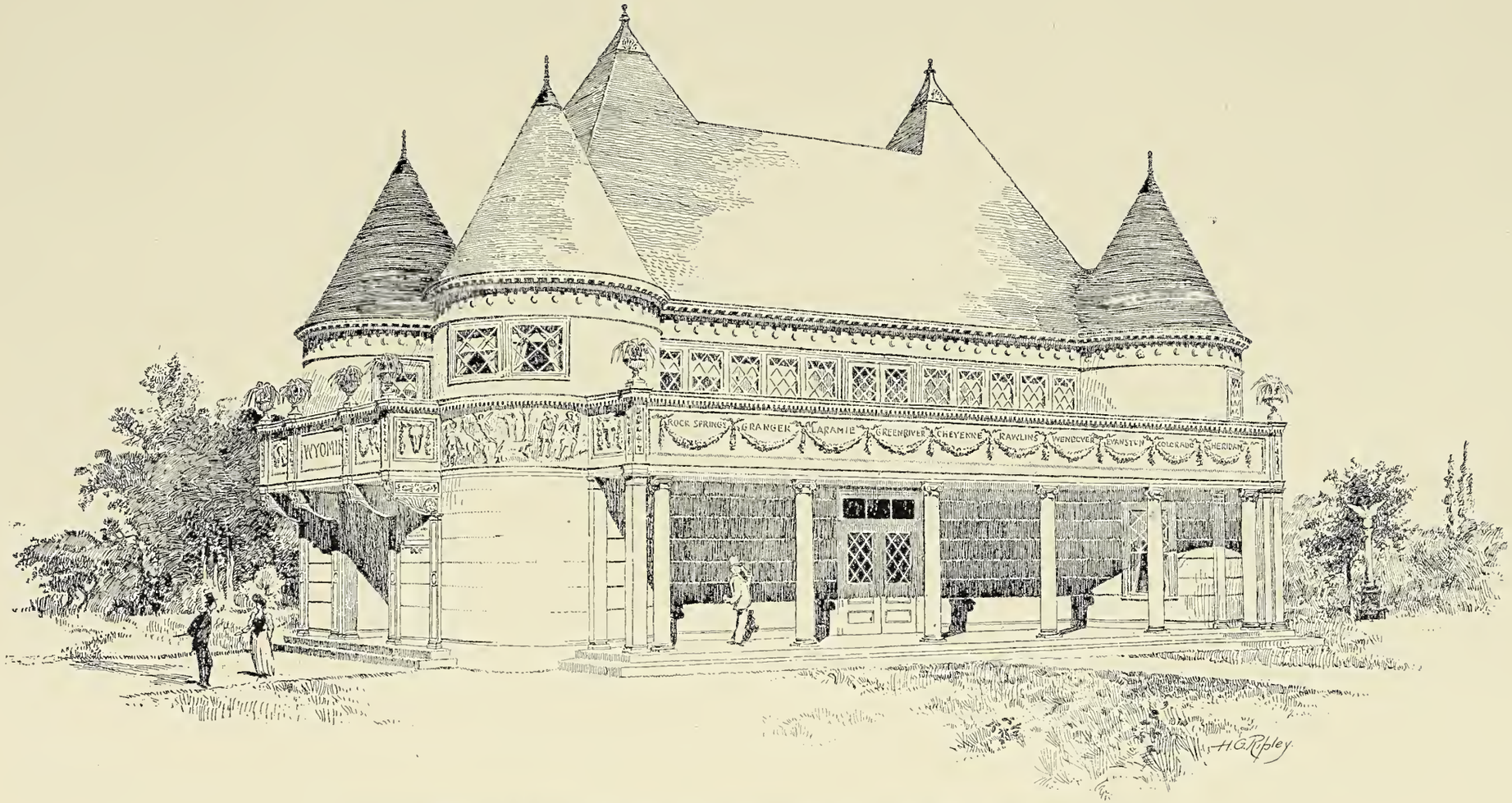
STATUE OF BENJAMIN FRANKLIN FOR ELECTRICITY BUILDING, WORLD'S COLUMBIAN EXPOSITION, CHICAGO.

CARL ROHL SMITH, SCULPTOR.



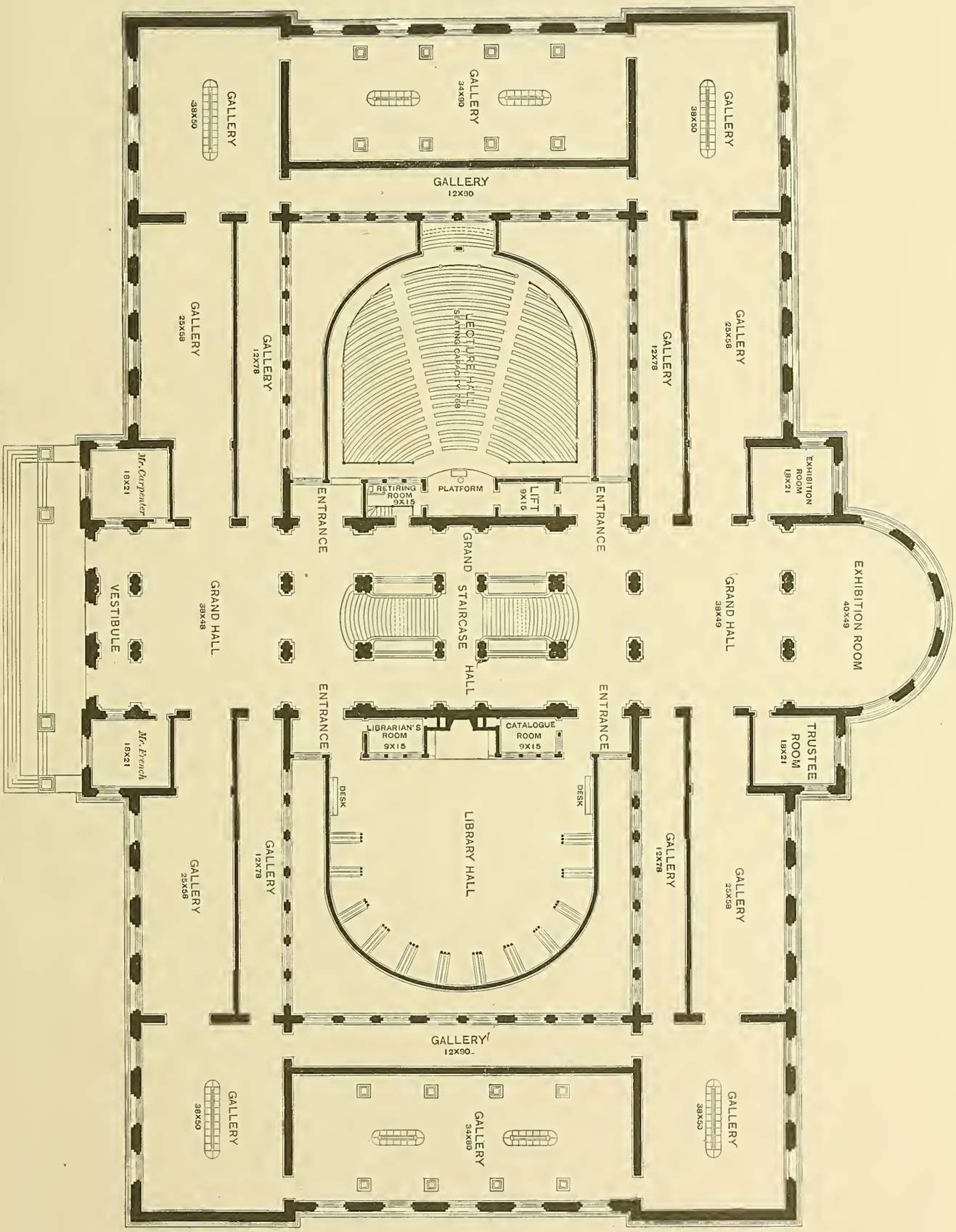
APPROVED DESIGN FOR WISCONSIN STATE BUILDING, WORLD'S COLUMBIAN EXPOSITION, CHICAGO.

WILLIAM WATERS, ARCHITECT, OSHKOSH, WISCONSIN.



APPROVED DESIGN FOR THE WYOMING BUILDING, WORLD'S COLUMBIAN EXPOSITION, CHICAGO.

Van Brunt & Howe, Architects, Boston and Kansas City.



PROPOSED BUILDING FOR THE ART INSTITUTE OF CHICAGO
FIRST FLOOR PLAN.

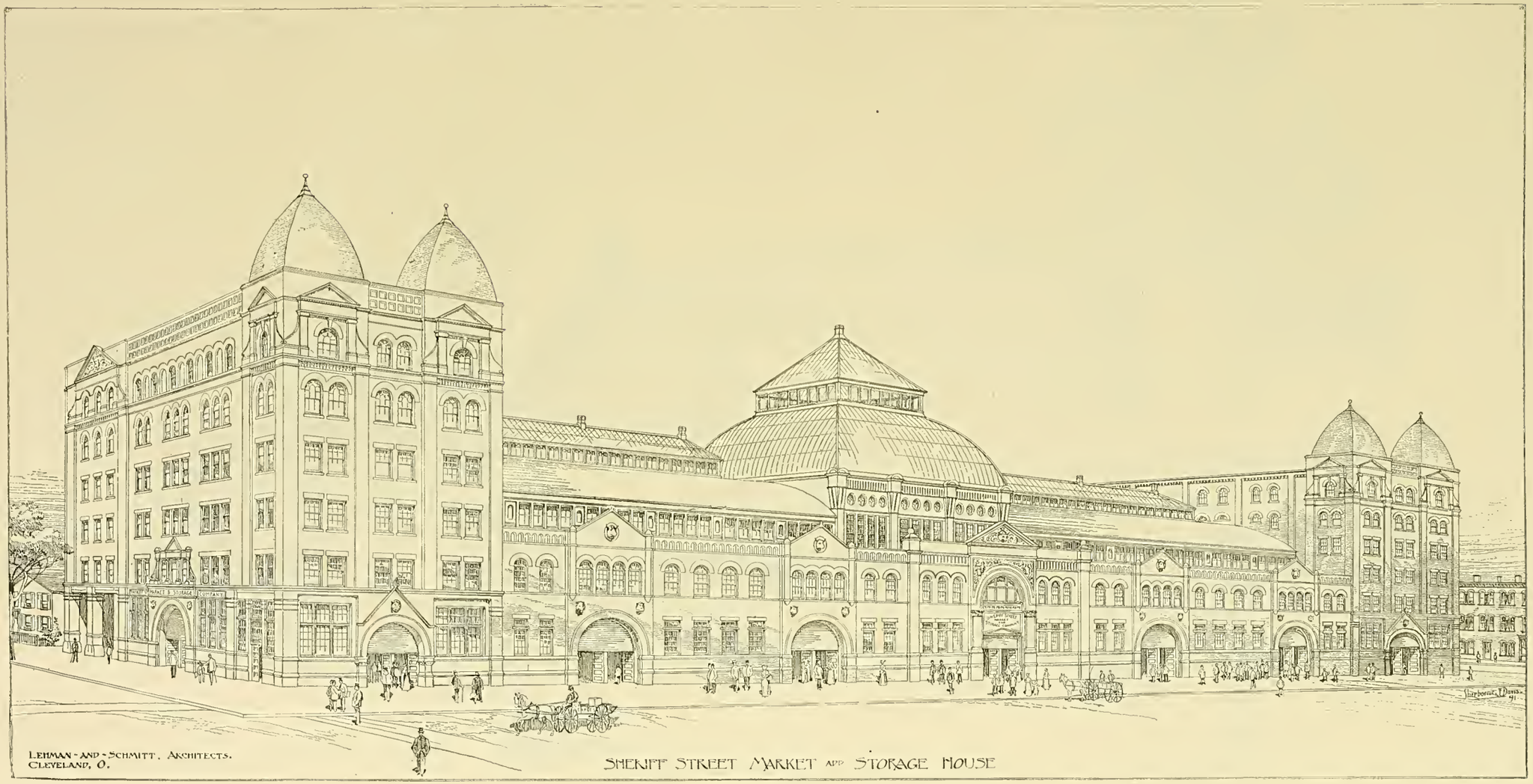


APPROVED DESIGN FOR WEST VIRGINIA STATE BUILDING, WORLD'S COLUMBIAN EXPOSITION, CHICAGO.

J. L. SILSBEE, ARCHITECT, CHICAGO

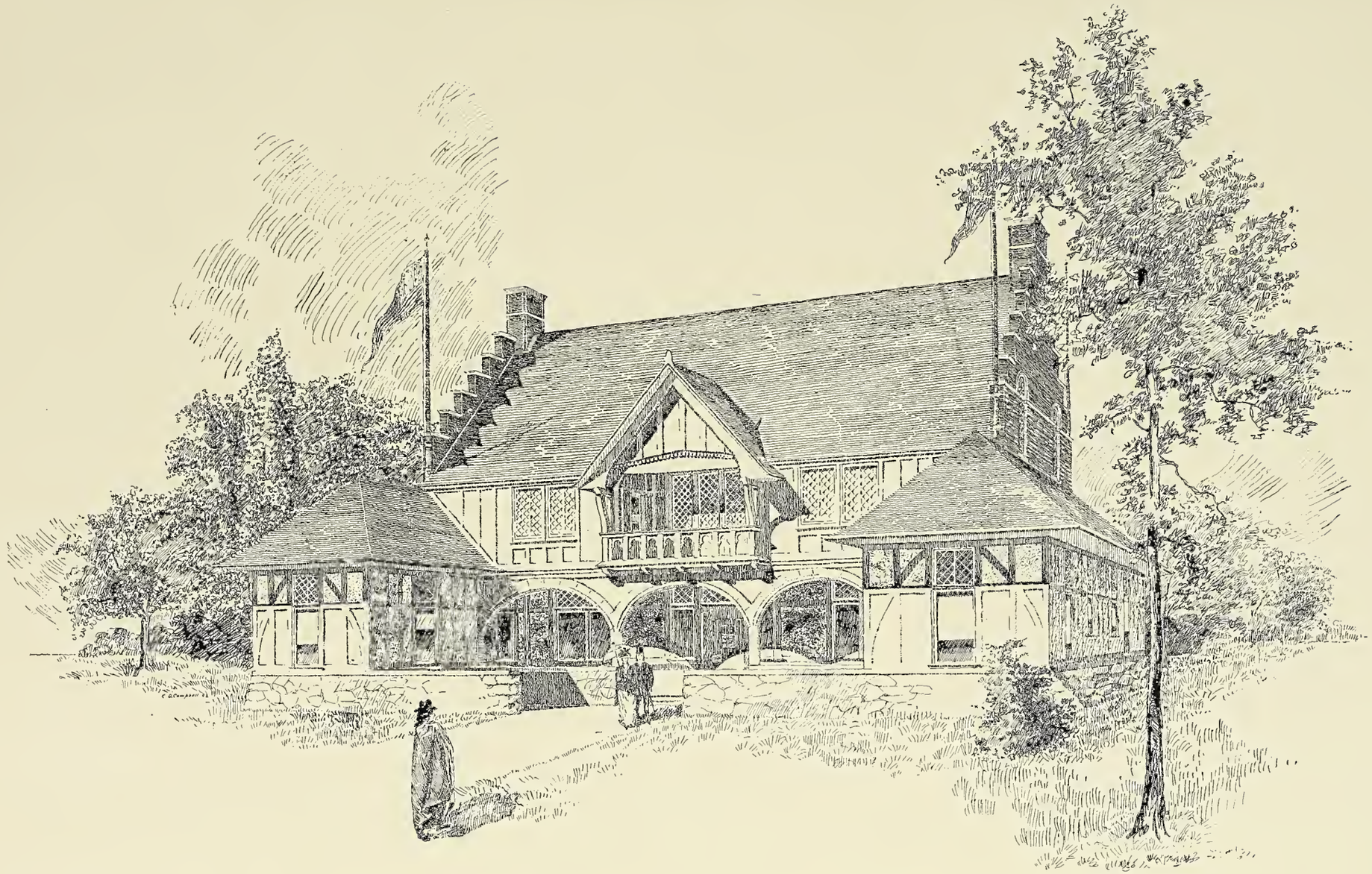


Residence at Highland Park
for P. A. Montgomery Esq.
W.W. Boyington & Co Architects.



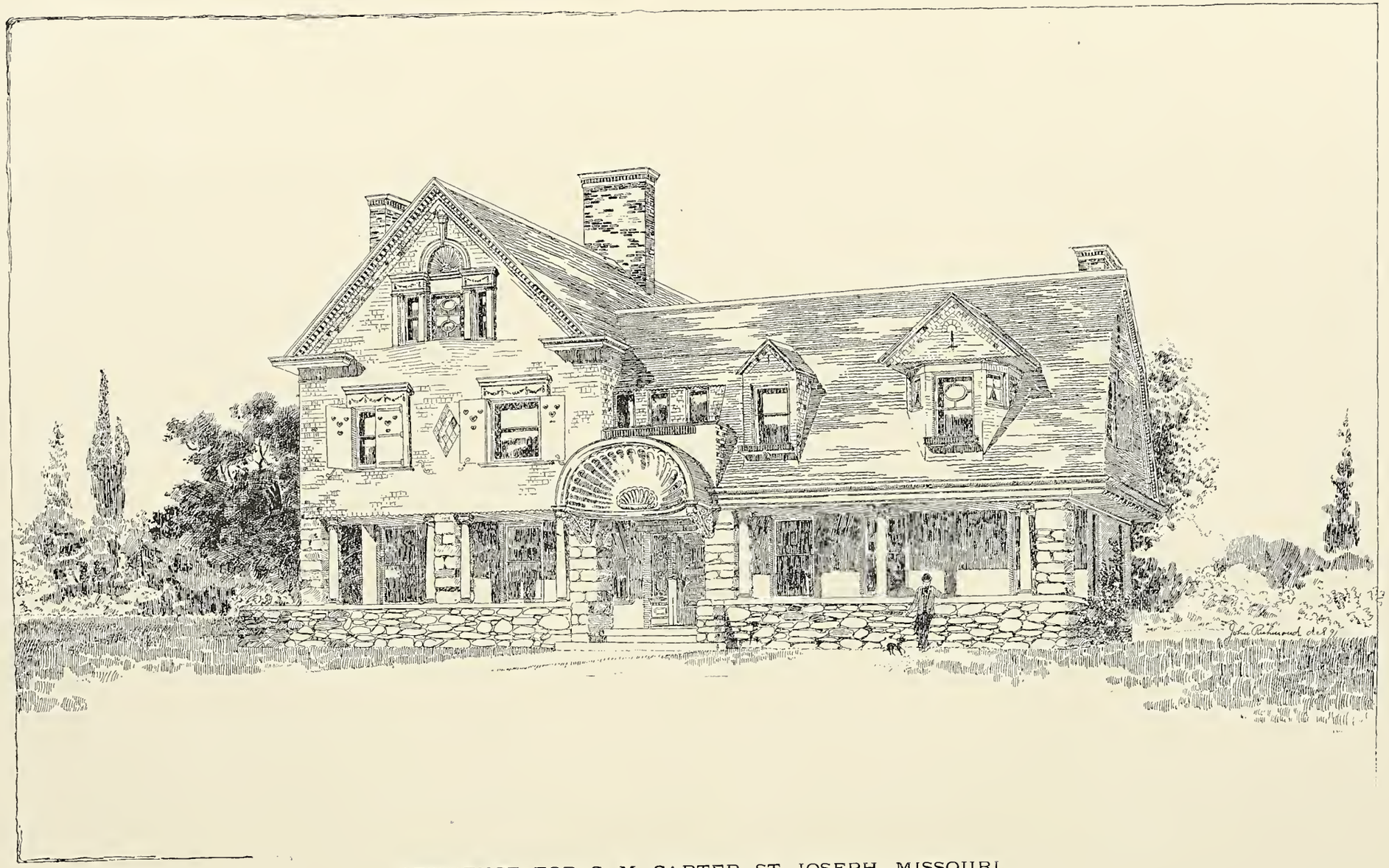
LEHMAN AND SCHMITT, ARCHITECTS.
CLEVELAND, O.

SHERIFF STREET MARKET AND STORAGE HOUSE



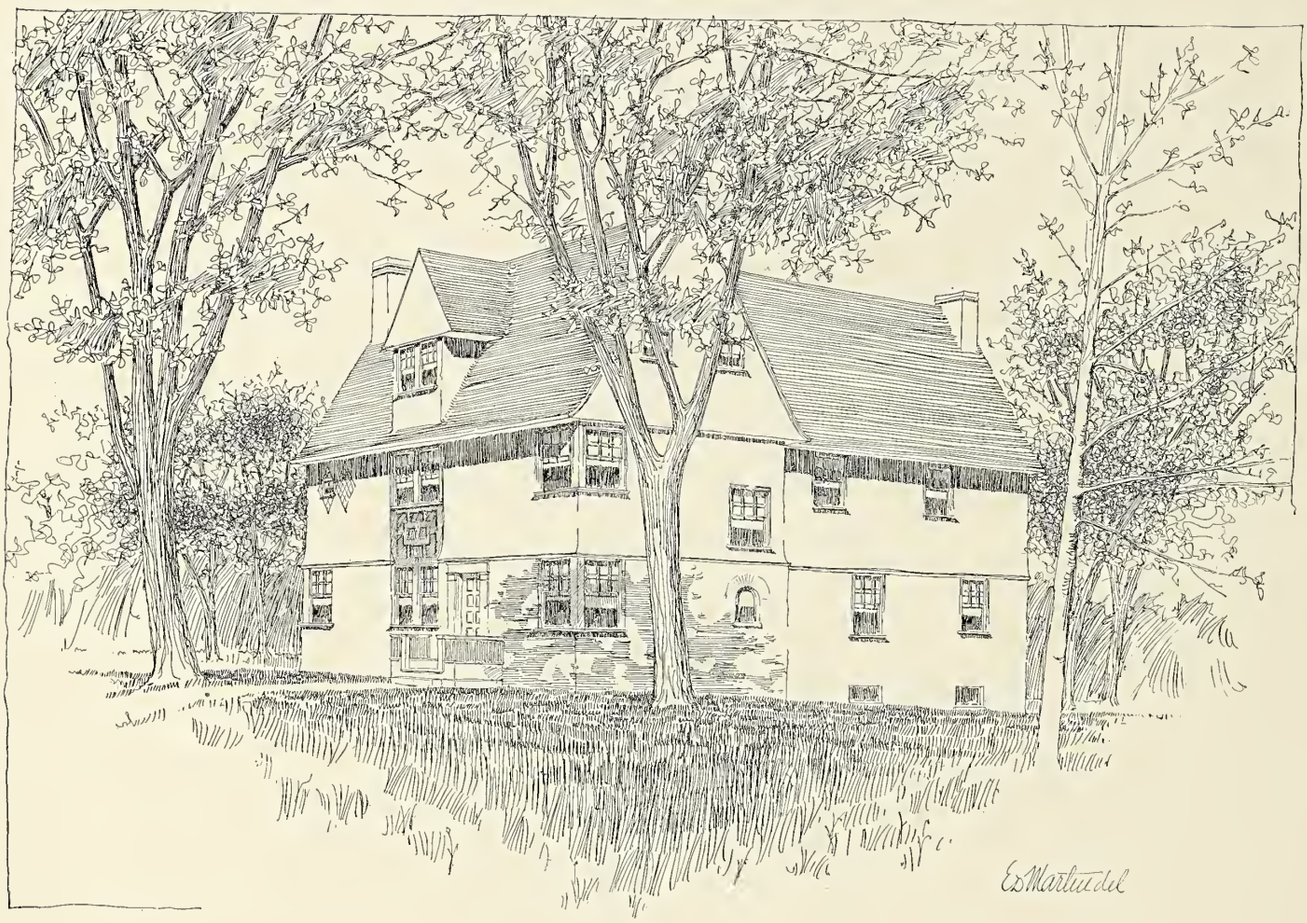
APPROVED DESIGN FOR NORTH DAKOTA STATE BUILDING, WORLD'S COLUMBIAN EXPOSITION, CHICAGO.

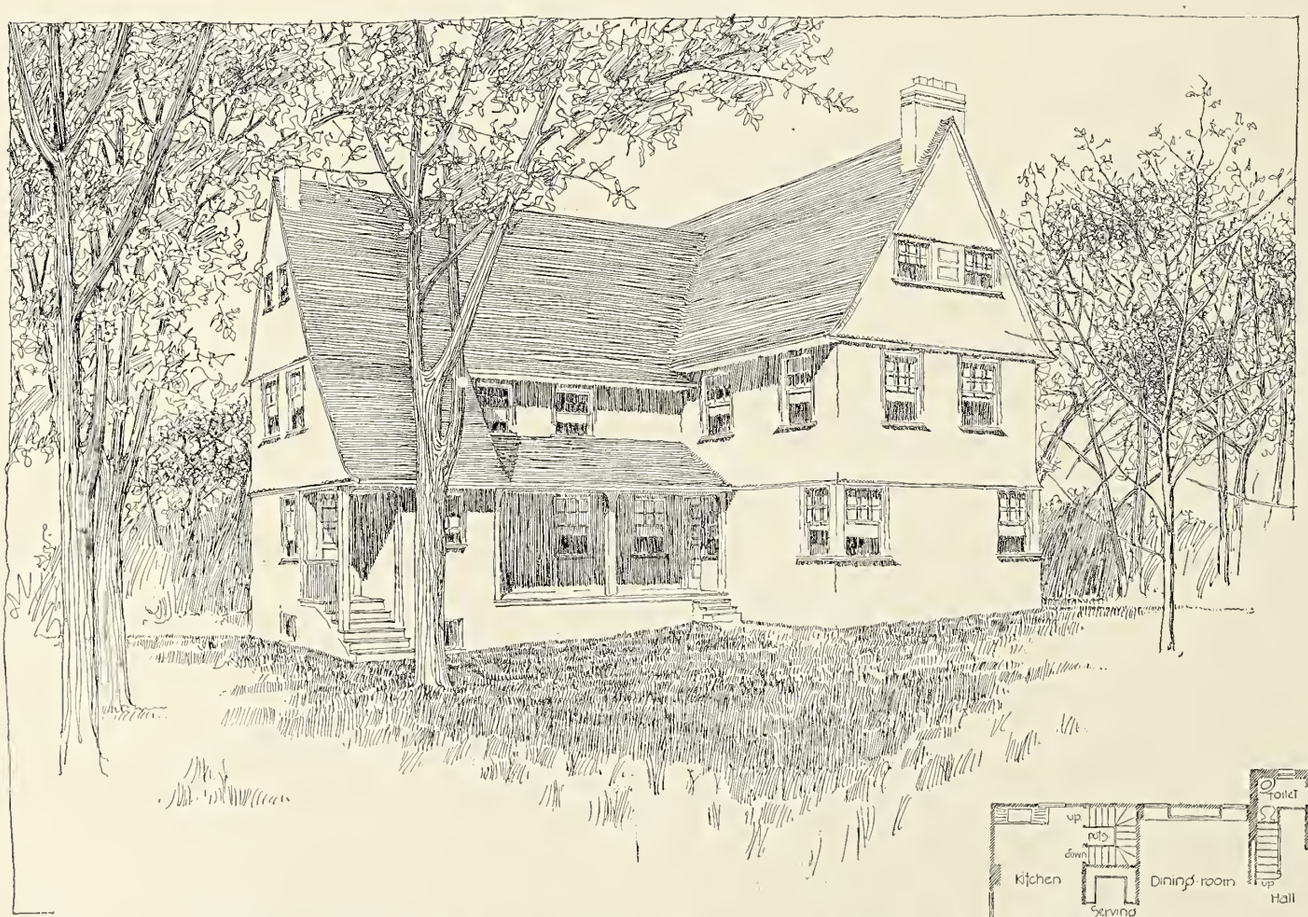
J. L. Silsbee, Architect, Chicago.

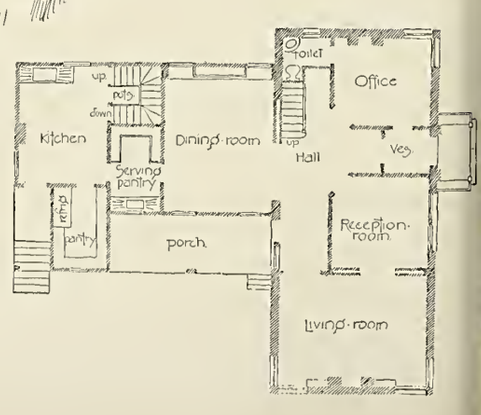


RESIDENCE FOR C. M. CARTER, ST. JOSEPH, MISSOURI.

ECKEL & MANN, ARCHITECTS.

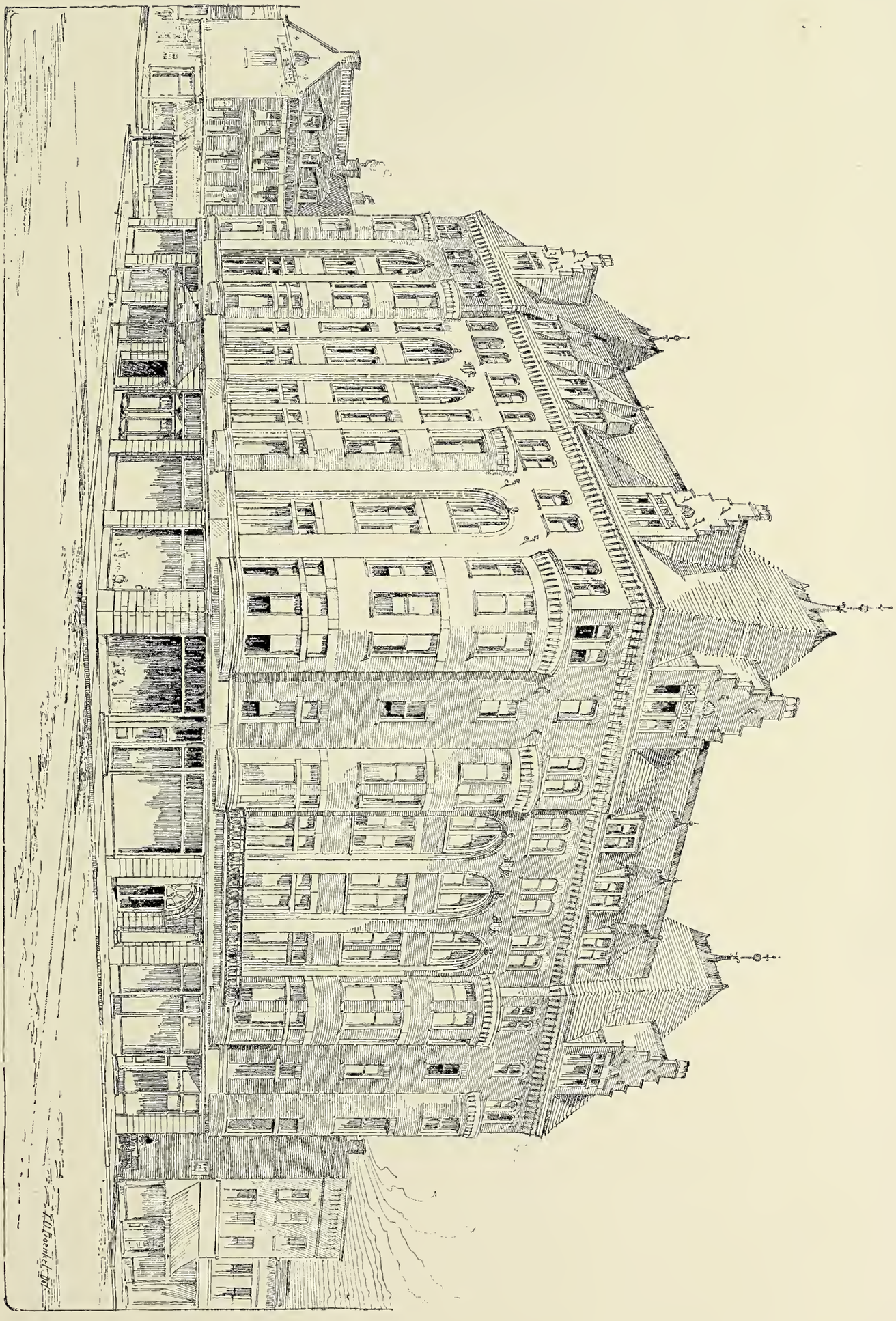






RESIDENCE OF DR. R. H. BABCOCK, HIGHLAND PARK, ILL.

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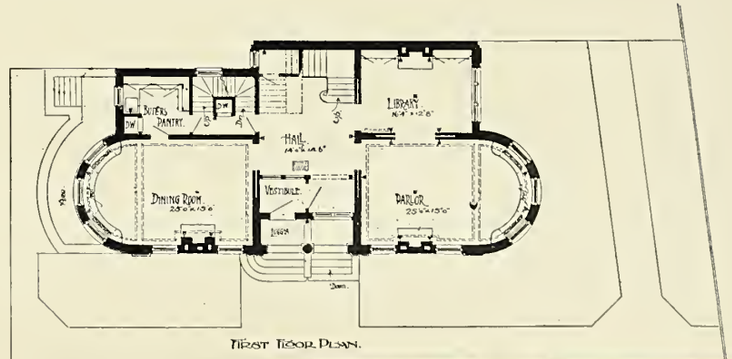
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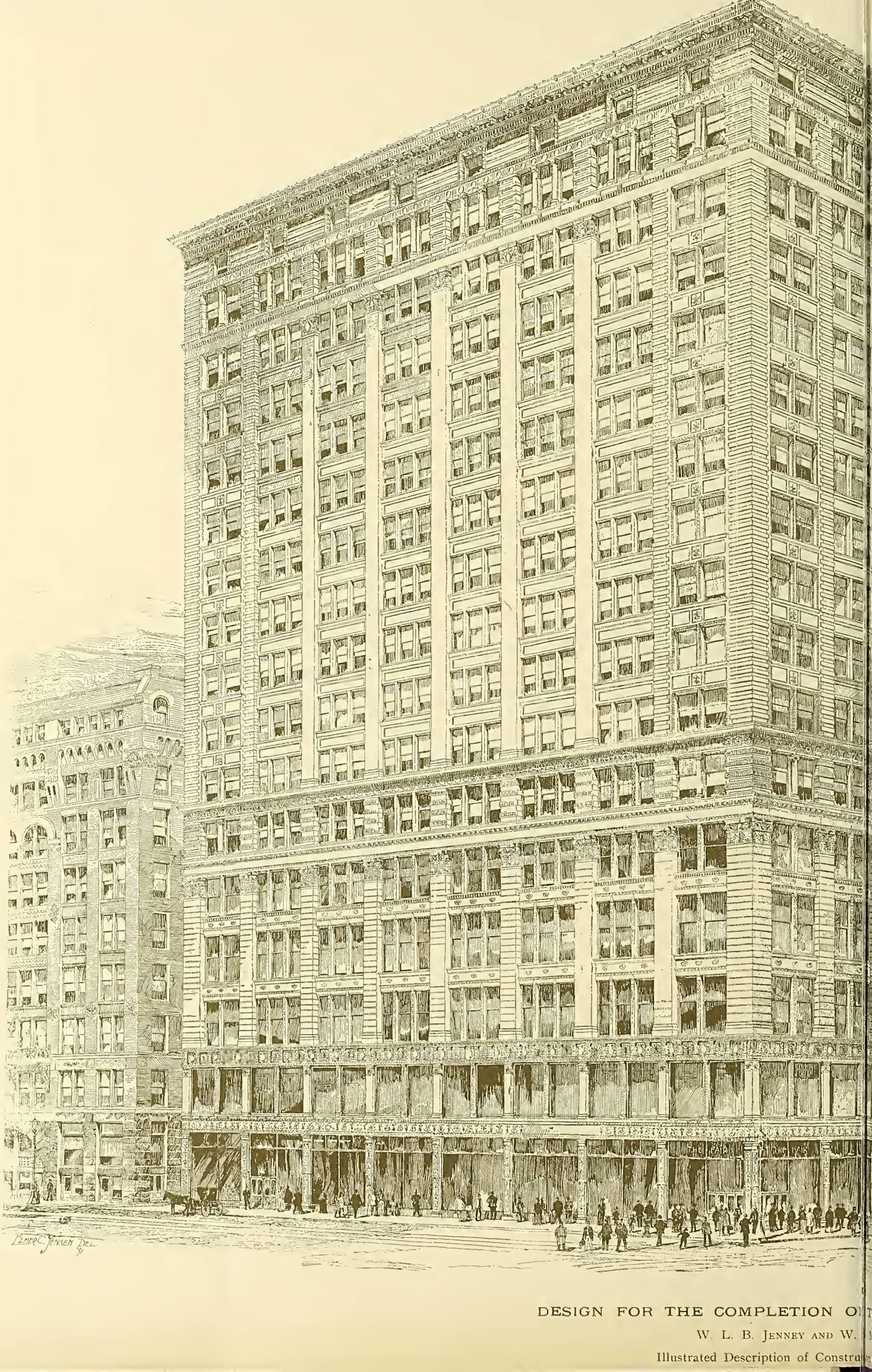


FIRST FLOOR PLAN.

PROPOSED BVILDING FOR THE ART INSTITVTE OF CHICAGO.

SHEPLEY, RUTAN, & COOLIDGE ARCHITECTS.

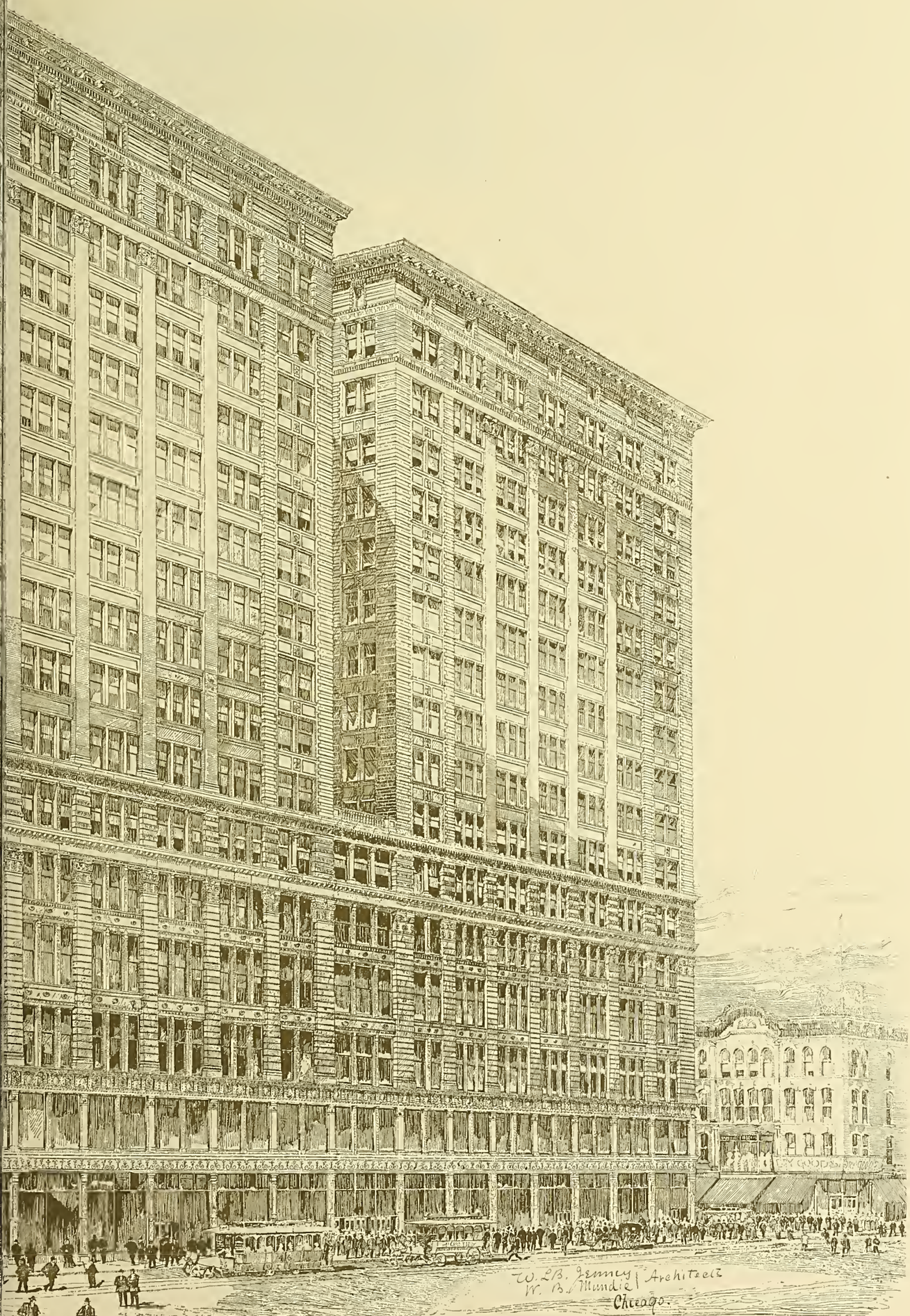




DESIGN FOR THE COMPLETION O

W. L. B. JENNEY AND W.

Illustrated Description of Constru



THE FAIR BUILDING, CHICAGO.

MUNDIE, ARCHITECTS.

n given in Vol. xviii, No. 4.



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Illustrated Description of Construction given in Vol. xviii, No. 4

THE INLAND ARCHITECT AND NEWS RECORD

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Architects Present the Windrim Bill.

It seems most probable that at last the government of the United States will take action upon the oft-presented, and as often ignored, measure for the reorganization of the office of the Supervising Architect, relative to the designing of public buildings, and that a plan will be inaugurated through which the government architecture of the future will be as representative of American architectural talent as in the past it has presented many of its worst features. For the third time in six years a committee of representative architects has gone to Washington, seeking to bring the matter before Congress. This time the Windrim bill, the shortest, most concise and simple plan yet proposed, was presented as follows:

A Bill to authorize the Secretary of the Treasury at his discretion to obtain the Plans for the Public Buildings erected by direction of Congress under the Treasury Department.

The Secretary of the Treasury is hereby authorized in his discretion to obtain plans, drawings and specifications for the erection of public buildings, by direct selection or competition of architects, under such conditions as he may prescribe, and to make payment of the expenses of said architects' services out of the appropriations for the respective buildings. Provided, the general direction of the work shall continue under the office of the supervising architect of the Treasury Department, the supervising architect to be the representative of the Government in all matters connected with the erection and completion of such buildings, the receipts of proposals, the award of contracts therefor, and the accounts and disbursements of moneys thereunder, and perform all the duties that now appertain to his office, except the preparation of drawings and specifications for such buildings; the said drawings and specifications, however, to be subject at all times to modifications and changes in arrangement of building and the selection of materials therefor as the Secretary of the Treasury may direct.

Six years ago it was impossible to meet a quorum of the Committee on Buildings and Grounds; three years ago no meeting was obtainable; the third time, on March 10, the mission was successfully accomplished. There were gathered as a committee representing the American Institute of Architects and the architects of the country generally, sixteen of the foremost names in the profession, including three officers and seven directors of the Institute. President Richard M. Hunt was there and Secretary Dankmar Adler, who acted as spokesman for the party. Edward H. Kendall, C. F. McKim and A. J. Bloor from New York City; First Vice-president Alfred Stone of Providence, Warren R. Briggs of Bridgeport, and Arthur Rotch of Boston, representing the New England States; William Worth Carlin, president of the Western New York State Chapter and a director of the Institute, Theopolis P. Chandler of Philadelphia, W. M. Poindexter, Glen Brown and James G. Hill, the ex-supervising architect, of Washington; and Charles E. Illsley and W. S. Eames of St. Louis, George B. Ferry of Milwaukee, with Mr. Adler, of Chicago, representing the West. They met, and for five hours were attentively listened to by almost the entire Committee on Buildings and Grounds. These, representing twelve of the largest states in the Union, were John B. Bankhead, chairman, of Alabama; Jo. Abbot of Texas, Clark Lewis of Mississippi, John C. Tarsney of Missouri, John G. Warwick and William H. Enochs of Ohio, William G. McKaig of Maryland, Walter C. Newberry of Illinois, John DeWitt Warner of New York, Archibald H. A. Williams and Seth L. Milliken of Maine, George H. Shonk of Pennsylvania and Willis Sweet of Idaho. Mr. Adler read and explained the bill; Mr. Carlin, in that clear, concise and forcible diction which always commands attention, showed the present condition of the public buildings of the country and the public necessity

that the method of procuring designs should be immediately changed. Mr. Hunt and Mr. Kendall each interested the listening members in their plea for better government architecture. Members of the house not upon the committee drifted in and stayed throughout the session, forgetting the routine business of the day, so interested were they in this high pleading for art; and at the close of the conference the architects were assured of the unanimous concurrence of the committee and a favorable report upon the bill as presented. The favorable report of the Committee on Buildings and Grounds gained, the measure has still to pass the House and Senate; but congressmen and senators, as well as the people they represent, have been educated in the value of architectural design during the last five years as never before, and their sympathy with the purpose of the bill is almost assured. This notable meeting of architects closed with a dinner, at which Mr. Hunt entertained the architects present with an amusing and instructive talk upon his many experiences with clients and humorous and just criticisms upon the works of those present, and it was long after midnight when the assembly adjourned and closed a conference that will mark an epoch in the architectural history of the United States.

A Peculiar Postoffice Building Bill.

A measure called the postoffice building bill has just passed the senate that illustrates the strong necessity of some such change in the method of designing buildings as is proposed by the Windrim bill. In detail this bill provides for new postoffices "where receipts for three years have exceeded nine thousand dollars." But it is not with the necessity for new buildings but with the proposed method of designing them that we have to deal. The bill provides that the plans shall be furnished by the supervising architect, in much the usual way, and "the designs and plans are to be so devised to provide for the construction of buildings of such dimensions as may be required for the transaction of the business of Presidential postoffices, and so that additions to their capacity may be constructed from time to time without injury to the harmony of design or usefulness of the building, and such design and plans are to be as nearly uniform as practicable, both as to exterior appearance and internal arrangement, and all such buildings are to be fireproof and provided with a suitable fireproof vault. * * * The proper working drawings and specifications for such buildings are to be prepared in accordance with the general designs and plans. The material to be used in the construction of any such building is to be determined by the postmaster-general." It is certainly refreshing to find the problem of a model design and plan for a building capable of extension, contraction and alteration "without injury to the harmony of the design" so easily solved by a United States senator, when it is safe to assume that no architect would have dreamed of its being possible. By all means let the supervising architect design and plan this model building, that is to fit a thousand, or several thousand, individual requirements, constructed of a dozen or a hundred different materials. That is what he receives the munificent sum of $4,500 a year for; and if he suggests that he was never educated in india rubber plan making and intimates as Paul Lautrup did in a recent lecture, that "architecture is a most serious thing to 'monkey' with," get a new supervising architect who can fill all these simple requirements. The bill is said to have been introduced in the senate by a Mr. Paddock, and the indications are that Mr. Paddock, whoever he may be, has a great head. He ought to abandon politics and practice architecture.

Alleged Combination of Electric Companies.

For the first time in the history of the construction of the buildings of the Columbian Exposition, a combination of contractors seems to have been effected. Bids having been called for electric lighting, only two were received, and one of these was withdrawn at the time of opening. The companies in the combination do not deny that one bid represents several of the largest companies in the United States, but make elaborate explanation of why this seemed to them necessary, claiming that no one plant could supply the demand, therefore, the cost, wear and tear, interest on plant, etc., was computed and a seven per cent profit added to the sum total. To a man less intelligent or less determined than the Chief of Construction of the Exposition this formidable combination may have seemed serious; but as it is, there is a strong probability of a foreign company supplying the electric lighting for the Exposition, and these companies who, because they are few in number and judge themselves powerful enough to shut out smaller competitors, will find themselves ignored in the letting of electric light contracts. It is ridiculous for companies like those concerned to claim that they cannot individually manufacture the amount of electric apparatus required, and they have no one to blame but themselves if the Exposition management for the first time in the letting of contracts seek abroad what they cannot procure at home. The damage sustained by these companies through their action will not end with the Exposition, for foreign electric companies once admitted here will establish a competition that no combination can break, and while the people will enjoy cheaper electric lighting, the enormous profits that have accrued to those engaged in the business will be a thing of the past, and all because of the shortsighted and unpatriotic policy of those engaged in the combination in trying to destroy natural and just competition.

Establishment of a Chicago Technological Institute.

A movement which was inaugurated by the Electrical Club of Chicago, looking toward the establishment of a technological institute, is rapidly gaining the support of all the scientific societies in the city. The need of a great technological school near the center of population in the United States has been apparent for many years, and a number of attempts to establish such has been projected by those who wish to see the people of the future provided with the means of acquiring a scientific education. Architects wish to see an architectural school established; electrical engineers one in which the science and practice of that newest of the sciences will be taught, and civil and mechanical engineers are solicitous for future education in their professions. This led a number of gentlemen representing these professions to respond to a recent invitation issued by the Electrical Club for a conference upon the subject, and the result will be the founding of an institute which will in its beginning be more comprehensive than any similar school yet established in this country. There is among its promoters the strongest sympathy with existing institutions, but at the center of the largest structural and scientific activity seems to be the proper place to study the theory and learn the practice of these professions.

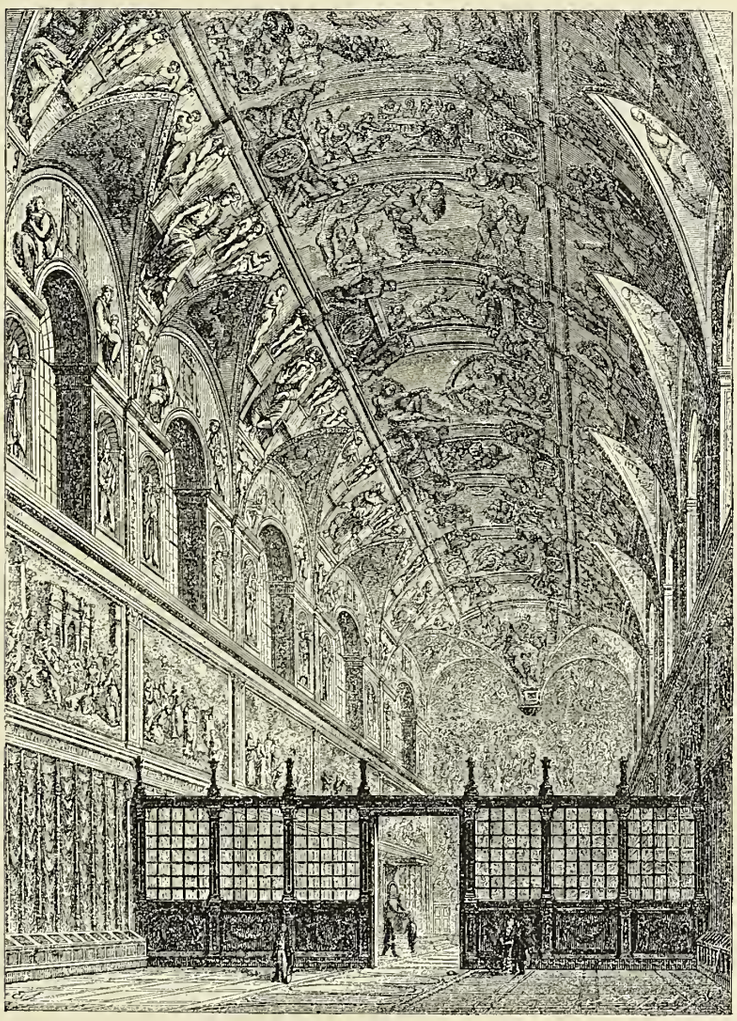
Architecture and the Allied Arts.

BY BARR FERREE.

PART V.— *Continued.*

IN the Renaissance, architecture became subordinate to the decoration. The great wall spaces of Italian buildings were designed solely for the display of painting, and the system begun by one artist was not unfrequently finished by another in a different style and with different subjects. Gigantic pictures covering the entire side of a room or the ceiling were produced, and architectural details were rendered as insignificant as possible in order that there be no interruption to the painted scenes. The Sistine Chapel is a typical example of this style, and while it is one of the most glorious monuments in the history of art, architecturally it is a mere box, the unparalled richness of the interior being derived solely from the paintings which cover its walls and ceilings. The system is totally different from that employed in Gothic buildings, and the two are incapable of comparison.

In returning to classic models the Renaissance builders made use of all the expedients known to the Romans. Their buildings were frequently coated with slabs of costly marble, and stones of rare colors were used to impress the spectator with their brilliant shades. The wealthy sovereigns of Italy sought to give visual evidence of their power and resources by the riches they lavished on their buildings. There is no longer an immediate connection between the exterior and the interior; the latter is reserved for the brush of the painter, the former is given up to the sculptor and decorator. No expense was spared to produce imposing results, and though the buildings were frequently wanting in uniformity of intention, no opportunity for display was neglected.



SISTINE CHAPEL, ROME.

The architecture of the Renaissance was especially distinguished by an overloading of ornament, a search after effect by the magnificence of the decoration, in which so long as quantity was cared for the quality was not regarded as of prime importance. Not that it was not treated with proper attention, or was the work of inferior artists, but there was a carelessness and want of refinement about a large part of Renaissance ornament which is not to be noted in the best grade of Gothic work. Life was too rapid, the movement of thought too swift, the taste for novelty too keen for much time to be spent on details. Princes were in haste to complete their palaces in the new style and did not hesitate to sacrifice details if the work could be expedited. Once completed ample time could be spent in the internal decorations of the building, and therefore much of the interior ornamentation was of a higher grade than that of the exterior.

With all this the period of the Renaissance was essentially an art age. People still found in art the most available means of expressing their ideas, and no period of the world's history is so crowded with the names of artists, with sculptors, painters, workers in metal, in bronze, iron, copper, lead, wood, pottery, engraving and many other forms. Painting now reached its finest expression and produced its most glorious results, and sculpture was scarcely less grand. The products of the painter's skill were carried in triumphal procession from the studio to their destination, and sovereigns contended with each other for the services of the most renowned and skillful artists. The very atmosphere teemed with art, and the ateliers were crowded with admiring visitors from the highest quality of the land. Sovereigns esteemed it an honor to dispatch an artist as envoy to a foreign court, and the removal of a painter from one city to another was a matter for public grief in the one place and universal congratulation in the other.

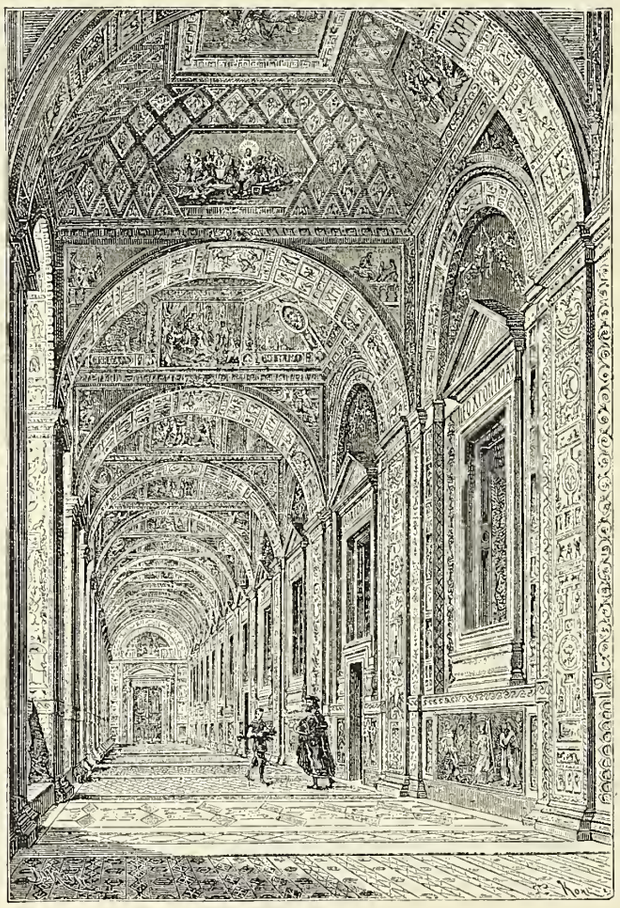
All kinds of materials were used and all sorts of artistic methods employed. Casting in bronze was brought to a high degree of perfection, and great works in sculpture undertaken. No building was complete until it had been decorated by the painter and sculptor, and though the system was very different from that carried out by Gothic artists, the employment of all the arts was not less necessary to the obtaining of a complete and finished effect. The inventive genius of the time suggested new modes, and the introduction of glazed pottery and tiles, figures and reliefs gave a new material to the builder, which was frequently employed with admirable results. Painted glass alone, of all the arts, fell into disuse because it was so completely part and parcel of the Gothic style that it failed to bend itself to the new art, or rather the artists failed to make it harmonize with the new style. The Renaissance was an Italian style in which painted glass was a foreign element and it must occupy a subordinate place. Its loss was scarcely felt in the wonderful advances made by the art of painting.

The history of art now changes its form, and whereas previously the story of a building was almost the story of all the arts, they now become differentiated and their progress is no longer simultaneous. They were still a part of the architecture in so far as no Renaissance building was completed until it had been ornamented, but their development was independent both of one another and of the architecture. They are practiced not so much for their general effect as for their individual results. The painter sought to excel with his brush, the sculptor with his chisel, the potter with his wheel. Engraving and printing turned the thoughts of the artist to the possibilities of art apart from any structural considerations whatsoever. Wall paintings of all kinds were still produced in large numbers, but panel pictures multiplied indefinitely. Statues were no longer made to fill certain designated niches but to be placed in a gallery where their merits as individual works of art could be appreciated without structural adjuncts. And yet it is a singular thing in connection with this wonderful spread of individualism that the very greatest artists sought for fame in other departments of art than in those in which he was undisputed master. Raphael prided himself on his architecture and Michael Angelo on his sculpture, yet both were, above all, painters. There is no better illustration of the belief in the intimate union of all the arts than in this inclination to work in diverse fields.

Individualism now became the predominant characteristic of art in all forms. Each successive period is marked with a greater accentuation of individual work and individual progress. Buildings are still required for the proper display of painting and sculpture, but the three great arts are no longer regarded as essential to each other.

Ornament is freely applied, but the calm majesty of the antique gives way in time to an overburdening of decoration which soon loses its real beauty and becomes complex and rich without meaning or force. From a willing and obedient handmaiden to architecture it became more and more an impediment, and finally dwindled into the processes of mechanical workshops where ornament is turned out at so much per foot with no regard to destination or function. Skilled artists no longer gave their time to designing the entire details of an elaborately decorated structure, but the architect, the painter and the sculptor each pursued his own way independently of the other and each sought to do his work without regard to its combination with other forms.

The monuments of the Renaissance are so numerous, and so many are so truly great works of art that is difficult to select representative examples without passing over others of equal merit. The period of the Renaissance is one in which painting developed more rapidly than the other arts. It rose to a height never before obtained. Much of the art history of this time is, therefore, concerned with the history of painting; but while the art was developed independently, it was employed as a decoration for buildings on a scale never before attempted. The Chapel of the Arena at Padua, the Spanish Chapel in S. Maria del Fiore, the Sistine Chapel in the Vatican are but a few of the wonderful buildings which derive their sole merit from the paintings with which their walls were covered. Nor was this class of work confined to the chapels and churches. Every palace, every municipal building, every structure of note had its decoration of paintings, and any attempt at classifying these edifices would be nothing short of presenting a list of all the buildings erected during the fifteenth, sixteenth and seventeenth centuries. Few of the rooms which now excite such admiration have any architectural merit, their art interest being derived exclusively from the paintings which are no longer adjuncts, but decorations. Of the great work of this time none is so characteristic and so wonderfully designed as the famous Stanze and Loggia of the Vatican which received some of the greatest of the works of Raphael. Notwithstanding that these chambers are among the most splendid in the world, they are devoid of any architectural merit and derive their sole interest from the paintings and decorations with which they are covered. In fact it has been remarked of the Stanze that "it seems as if the architect had purposely accumulated every possible difficulty for a painter both as regards light and irregularity of line, in all these chambers except that of Constantine."



THE LOGGIA OF RAPHAEL.

No works of sculpture were produced in the Renaissance that compare in magnitude and importance with those of painting. The most ambitious monument of the time, that designed by Michael Angelo for Pope Julius II was never carried out, though the statue of Moses designed for it is one of the great master's masterpieces. The art was practiced and much work doue, but the taste for great monumental work in sculpture which was so active in the Gothic seems to have disappeared. The Tombs of Guiliano and Lorenzo de Medici in S. Lorenzo at Florence, also by Michael Angelo, are among the finest monuments of the time, but they cannot compare in magnitude and importance with the tremendous works in painting by the same master nor with those produced by other painters.

Bronze came into favor as a medium for statues and other ornamental work. The immortal bronze doors to the Baptistery of Florence by Ghiberti justly rank among the greatest monuments of art the world has seen, and are important not only for their own fine qualities, but as marking a new era in the progress of art, and of breaking away from the conditions which threatened to put an end to its further development. The laboratory of the Popes kept the art of mosaic alive, though it never came into use again as it did in the Byzantine and early Christian styles, where it formed the chief means of decoration. The mosaics in the dome of S. Peter's, at Rome, are probably the best of this work we have. Examples of characteristic pieces of work in all departments might be multiplied almost indefinitely, but the subdivision of artists and the separation of the different pieces of work from the organic whole has destroyed the unity of art which was characteristic of previous times. The movement of the Renaissance, in fact, soon transforms itself from a concerted action along which all forms of art develop evenly and with a single purpose, to a series of disconnected individual developments, each striving for perfection in its own field, without regard to its effect on the whole. Art no longer stands for one general phase of culture, but for a series of phases that have little or no association with each other.

Whether this may have influenced the development of art or not, it is certain that a love for display, an over-embellishment of ornament, a disregard of simplicity speedily became popular. All purity of line and design was lost, and with the senseless display of ornament in the Rococo period art reached a depth from which it has scarcely now been withdrawn.

The age of science to which the Renaissance serves as an introduction does not take kindly to the production of great works of art. From being the sole means through which the inventive genius of humanity found expression it has become but one of many means, and as the thoughts of the people were turned more and more to new fields of culture they were turned more and more from art. A strange feeling has spread abroad that science and art are incompatible, and that while the scientific is essentially practical the artistic is more ornamental than necessary. Under such circumstances a uniform development of various forms of art is clearly out of the question.

The history of art as preserved by the monuments, and especially the results shown by the study of architecture and the allied arts, shows that the best and most successful forms are those which are the most sensible and useful and which most clearly express a definite meaning. The art of the middle ages, to use but a single example, shows that it is possible to give every object an art value, and illustrates how the union of varied accessories will produce a complete and beautiful whole. It shows how grace and beauty can be given to even homely things, and their appearance not only wonderfully increased but their usefulness not diminished. The study of art teaches the profound truth that to art all things are possible, and instead of being an impediment to progress it is, in fact, a most tangible evidence of it.

In our own day there is no immediate connection between architecture and the allied arts, each pursuing an independent course, instead of one general movement. It is simply carrying the principles of the Renaissance to their legitimate conclusion. Generally speaking, architecture, painting and sculpture are each now as wide apart as three things can be, but fortunately there are signs of a reaction, and it is possible that at some time we may return to a more intelligent method of practising all forms of art for the sake of the concerted effect, rather than for the exclusive achievement of individual results in various directions. In the present narrative it has only been possible to indicate the salient points of the more important movements, but enough has been said to show that in former times the union between the allied arts has been close and intimate. The glory of the greatest of architectural monuments is due not to skill

in one field, not to individual work, not to the elevation of one form of art over another, but to the proper subordination of all forms to the completed whole.

It is thus that art developed and progress in one line was reflected in kindred fields. Progress in architecture was accompanied with progress in painting and in sculpture, and the beauty of the Gothic cathedrals is derived not from improvement in architectural methods and ideas alone, but also from increased skill in the allied arts, which were so important an element in the style. It is, in fact, quite impossible to consider the progress made in one form without including that made in others. Each mutually influenced the other and all gave expression to an earnest desire for better and truer work. In this way the union of all the arts was complete, and thus they helped each other. General progress in art was never greater nor more rapid than when they worked in union; it was never more unsatisfactory than when the different parts separated and sought expression in their own field without reference to the others. Union is indeed strength, and separation, dissolution.

(To be continued.)

Recent Fireproof Building in Chicago.

BY P. B. WIGHT, ARCHITECT.

PART II.

IN THE INLAND ARCHITECT for February, 1885, an article appeared under the above caption and by the same writer. It was marked "to be continued." It has not been continued until now. But seven years have marked a continuous development, with but few exceptions, in the science of fireproof construction as practiced in Chicago and neighboring cities, and to continue the subject as then outlined would be but the repetition of a "back number." What was then novel is now well known. The systems of fireproof construction as then used in Chicago have been copied with more or less accuracy and put into practice from Boston to San Francisco and from Montreal to Atlanta. Architects from other cities, through personal investigation not only, but through the information disseminated by this and other journals, have been close students of what is known now as the Chicago system.

On reviewing what was then written I see no occasion to change a word. I can see where the system has been improved, and in only one particular can I doubt the efficacy of what I then commended. In some respects the desire for cheap work has resulted in inferior work being done, but in the main the development has been in the direction of better work.

HIGH BUILDINGS.

In respect to one system of iron construction that has since been extensively used in fireproof buildings — the use of iron columns in exterior walls — I alluded to it in connection with one building only, that of the Home Insurance Company. This has been so extensively employed of late as to have almost revolutionized the system of construction used for tall buildings on compressible soils. It has been well explained by others in this and other journals. Through its use many buildings have been erected within the last seven years higher than ever before, with roof lines 200 to 220 feet above the street grade and sixteen to eighteen stories high. But at the same time several buildings have been erected to a height above 200 feet and sixteen stories high in which this system of construction has not been employed in the exterior walls. The possibility of erecting such structures has not arisen from the adoption of iron and steel for exterior supports, but from the scientific construction of foundations. It must be admitted, however, that the saving of weight in exterior walls of steel construction can be such as to permit the possible erection of a thirty-story building within the limits of safety. It is generally admitted that sixteen stories and 210 feet in vertical height is the safe limit for exterior walls built mainly of brick on the compressible soil of Chicago. This limitation is determined by the fact that nearly the whole ground under such a building must be covered in order to keep the weight within 4,000 pounds to the superficial foot, a weight which has been determined in numerous cases to be one within which only can any approximate estimate be made of the amount of settlement that will take place. This has, I think, been well demonstrated in the case of the Monadnock and Kearsarge buildings in Chicago. The tower of the Auditorium, 260 feet in height, which is sometimes regarded as a building by itself, having an independent foundation, might possibly be quoted as an exception. But while it has served its purpose, and is in no sense a constructive failure, the amount of total settlement in the Auditorium building is not such as it would be wise to allow for in the more crowded part of the city, where the high buildings are contiguous.

THE FOUNDATION PROBLEM.

The connection between the foundation and fireproof problems is a necessary one, because all the high buildings are necessarily fireproof; and conversely, because fireproof buildings to be most profitable are necessarily high. This of course refers to business structures built for revenue only.

The writer's experience in solving the foundation problem was an early one, and was not connected with the necessity for erecting high buildings of fireproof construction. It was first gained through his association with Messrs. Gambrill and H. H Richardson in solving the problem of how to save from destruction the American Express Company's building at Chicago in 1873, which, while not a fireproof building was a very high one for the time, rising 120 feet, and very heavy, having front walls 2½ feet thick. At the time I think it was the heaviest building for business purposes that had yet been projected in Chicago. In this I made computations of the resistance of the soil to weight, based on the actual weight of different parts of the building, which had been partially erected. I then made up my mind that 4,000 pounds to the foot, on the average, of Chicago clay, was the limit of weight that should be safely used. I put in concrete, just as now used, for the parts that were entirely rebuilt, and fifteen-inch I beams, doubled, connecting the foundations of the heavy piers together and carrying the weight of the light intermediate piers. The latter method was suggested by the crushing of the light piers in another building at Chicago which alternated with the heavy piers, for the simple reason that the light piers had proportionately *too much* foundation under them. I subsequently noticed the same experience in the Mills building at New York, where the mullions of the lower stories were crushed because they were not strong enough to force down the foundations that were under them as fast as the foundations of the heavy piers settled.

I was afterward guided by this experience in the construction of the foundations of the Montauk block, at Chicago, in which I was associated with Burnham & Root as consulting architect, having been assigned especially to the foundation problem. This was the first high and heavy office building erected in Chicago, though by no means comparing in these respects with many that have since been built. I made four borings under it down to the "tunnel" clay. The foundations are of concrete eighteen inches thick, on top of which were dimension stones forming pyramids in steps nearly filling up the basement. Under two stacks of vaults iron rails were built in the concrete, where the height of the basement did not suffice for building pyramids with safe offsets in the stone work. The rails were used to get an extra offset in the concrete where without them it might be broken off by the settlement of the building. This was the first use ever made of iron rails to stiffen the offsets in concrete foundations. The foundation is mainly in piers, but there are also exterior walls in which there are large openings. Under these continuous foundations were used; and where the openings occurred, in some of which mullions were used, I beams were built in the foundations to serve the same purpose as inverted arches. There was no room for such, and if there had been they would not have been used, as it has been heretofore found that inverted arches on Chicago soil have caused foundations to spread. These details are of interest now as showing how the first high fireproof office building was built. The walls of the Montauk block are of brick, and quite as heavy as those of some of the fourteen-story buildings, which are of steel construction filled in.

It was to save the basements for useful and remunerative occupation that the use of iron and steel rails afterward became so extensive as to dispense entirely with all stone in Chicago foundations. The experience of the Montauk block led to an amplification of the use that had been made of iron rails under its vault foundations to obtain wide offsets in concrete substructions. Messrs. Burnham & Root, in later buildings, put in two courses of steel rails at right angles, filling their interstices with concrete, and crossing the upper course with I beams placed close together, on which the stools for the iron columns were set. This brought the stools on the level with the basement floors, and thus the basements were only obstructed by the iron columns and exterior walls. This construction has been amplified to such an extent that now I beams are generally used instead of rails, and are laid in several tiers, close together where necessary; and, as in the case of the Monadnock and Kearsarge buildings, cover not only nearly all of the basement floor but continue out beyond the curb line of the sidewalk on one side, in order to find resisting clay. The

use of the automatic pneumatic drainage system, which raises the drainage up to the sewers, has recently enabled constructors to lower the cellar floors below the sewerage and to sink the steel and concrete foundations below the old hard surface of the clay bed which underlies the city.

SUPERSTRUCTURES.

There is no subject that has been more closely studied by our architects since 1885 than the construction of superstructures. And while, as I have said, several very high buildings, or "sky scrapers" as they have been nicknamed, have been erected with solid exterior walls, their interiors have been carried out in most cases according to the improved methods. That is to say, the interiors have been homogeneous structures of steel. Rolled steel supports, either of the Z bar, compound channel iron or Phœnix pattern have been more extensively used than cast iron. Interior brick division walls have been omitted to save room and weight. The structural steel has been assembled with hot riveted connections, both horizontally and vertically, rather than the old system of bolting. Through the appearance of cracks in ceilings of buildings having floors and ceilings of flat hollow tile arch construction, which generally started from the column connections, it was found that bolt connections were not to be relied upon. All bolt holes must be larger than the bolts that enter them. If a girder is bolted to a column by a bolt running transversely through the girder, the girder may not be in tension at the time that the bolt is put in. Subsequently any settlement of the outer walls that is greater than that of the interior columns will always put the girders in tension and pull out the slack in the loose bolt holes, bringing them to a bearing against both the columns and girders. This, if it happens after the floor arches are in position, will produce cracks. Several methods have been used to obviate this. In some cases wedges have been driven between the columns and girders to bring the sides of the bolts to a bearing. The best method with cast-iron columns was to run screw bolts from the girders through holes in the columns, and screw them up with nuts on the inside of the columns, before setting the next tier of columns. The best system with all-steel construction is to make all connections with hot rivets.

VAULTS AND FIREPROOF CLOSETS.

A further departure from the old methods of planning has been to omit all brick fireproof vaults, except such as may be required in the first story, and to build fireproof closets at convenient places on the fireproof floors of the rooms without regard to superimposing them. These closets always have double sets of doors, the same as used for brick vaults, and where reasonable security against thieving is sought they are lined with boiler iron or steel. It must be remembered, however, that such closets, or "vaults" as they are generally called, are built on the assumption that the floors are built to stay in case of conflagration, and they should not be used unless the floors are of the best construction. Admitting that the contents of any room in a fireproof building are liable to be entirely burned, they are a protection for valuable books and papers only as against the burning of one or more rooms. In many cases these closets have been of the cheapest construction, to give tenants a fancied security which does not exist. In some buildings they are of the lightest tile used for partitions, and only three inches thick with one air space. They should never be built less than six inches thick, with two air spaces, and if they do not run to the ceiling, should have two courses of tile on top. In buildings where wooden floor joists are used, even though protected by tile ceilings below and concrete filling above, they should always be built in stacks, one over the other, and of not less than six-inch hollow tile, with two air spaces. They should also be built from foundations on the ground, or on iron or steel supports that have been protected from fire in the best known manner. This was done by the writer in a building in Detroit, where there are eleven stacks, each nine stories high, supported on ironwork at the second story.

The saving of space and weight by the use of an interior steel structure has been very great. The absence of brick walls has made it possible to get the best system of bracing against wind or the possible deviation of a building from a vertical line during its settlement. All partitions that would formerly have been of brick are reduced to four or six inches in thickness, and built between the column and girder construction. The positions of columns are indicated by piers or pilasters, built of hollow tiles around them, and these are generally rectangular, or rectangular with rounded corners, if engaged, and circular if standing free.

FLUES AND FIREPLACES.

One of the most prominent innovations in the new systems of fireproof interior construction is in the building of chimneys and fireplaces. Where a building is all of steel and tile, chimneys may be built in any convenient place, and are not dependent upon foundations, for they are built not of brick but of tile. The flues are formed with the usual patterns of rectangular or round fireclay flue linings, such as have been heretofore and are now generally used in brick walls, to insure a clean, smooth, unobstructed interior surface, and, consequently, a good draft. The tile flues are surrounded by hollow tile walls, generally of three-inch tiles, twelve by twelve inches in size, and set vertically, or so that the hollow spaces are up and down. This gives greater strength to stacks, which are often built to a great height.

Fireplaces are formed much the same as with bricks, and no trimmer arches are required. Chimneys having an independent flue for each fireplace are thus carried through the roof in stacks. The great size of these, if built of brick, is reduced considerably by placing the flue linings close together and surrounding the whole above the roof line with smooth, hollow tiles that have been salt glazed, like sewer pipe. They are then coped with salt-glazed tiles especially made for the purpose, and, if required, windguard tops of the same material are set on top of the flues.

EXTERIOR WALL CONSTRUCTION.

When cast-iron columns were first used in the exterior wall of a high building, the brick wall was built outside of and around them, much the same as if no iron had been used. The columns only differed from those supporting the interior in their being square instead of round. The girders were attached to them as to the other columns and did not rest on the walls. There were no horizontal beams between the exterior columns. In the full steel frame structures since erected, every part of the exterior as well as interior of the building is carried on this structure and its foundation. Hence the foundation for the steel work is the foundation for the whole building. The exterior wall is only a mask, and the interior face of the exterior wall is not necessarily connected with it. There is a wall of apparent thickness, but it is not a wall, in the proper sense of the word, and where the necessities of lighting are great, the wall disappears entirely and the steel or iron supports are simply clothed with what is necessary to give a good exterior appearance, hold the window frames in place and protect the construction from exterior and interior fire. The horizontal lines of constrnction are carried through the exterior walls as well as the vertical ones. The horizontal and vertical connections are all firm, and in the best work are made with hot rivets. The building cannot be pulled apart in any direction, and it would only require additional riveting to make such a building so that it could be lifted bodily from the ground, if it were possible to bring sufficient force to act from above. It is for this reason that this system has been adopted for the three largest buildings in San Francisco where the danger always feared from earthquakes has been such as heretofore to deter investors from erecting high buildings. The capitalists of that city, the first of whom was Mr. De Young, of the *San Francisco Chronicle*, quickly saw that a system of building invented with another object in view was *earthquake proof*. The result is the new *Chronicle* building, the Crocker and the Mills, all ten to twelve stories high, of iron and steel construction, and fireproofed throughout on the Chicago system.

But while this system of building is new as applied to business structures it is not entirely novel. There is a grain elevator in Brooklyn which was erected thirty years ago the exterior of which is constructed of a cast-iron framework filled in with a light wall of brick, the iron showing on the outside. There is also a shot tower in New York City, which was built about the same time in the same manner.

The first instance that I am aware of in which the exterior wall of a building has been made constructively of iron, with fireproof treatment, may be found in the rear wall of the Phœnix Insurance building at Chicago. It occupies about one hundred running feet of the court behind the elevators and stairways, and the reason for building it thus was that a vertical wall, without offsets, was wanted behind the elevators, and a clear space in the cellar beneath the building and court. In this the vertical supports are cast-iron square columns, and there are two sets of horizontal supports in each story; those on the outside being I beams bracketed to the columns to support the exterior wall, which is of 4½ inches of enameled brick, and those of the inside being I beams between the columns to support the inner surface, which is of 4-inch hollow tiles. The only connection between these two skins is at the window jambs. This system had been partially used previously in the Home Insurance building court wall, but there the filling is a brick wall set between the cast-iron columns.

(*To be continued.*)

Notes from our French Exchanges.*

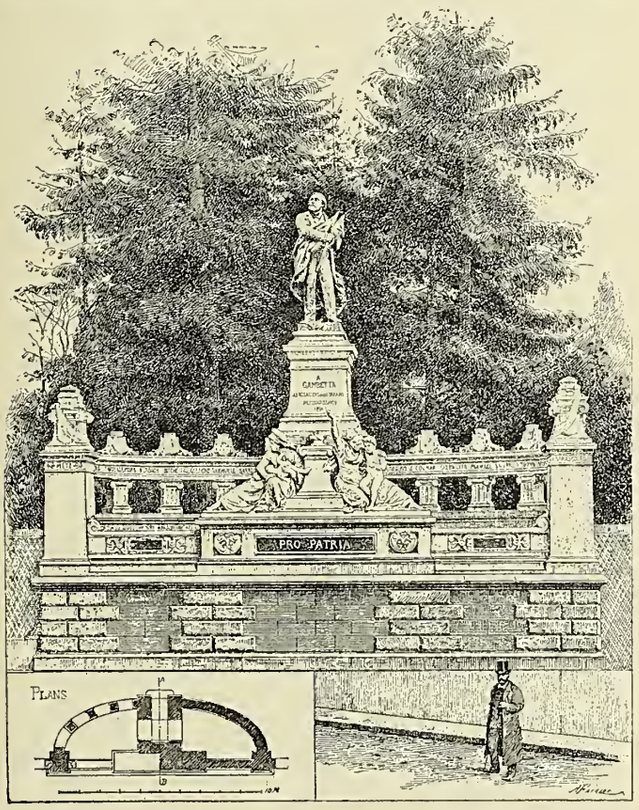
THE GAMBETTA MONUMENT.

THE monument which the inhabitants of Alsace and Lorraine have just erected on the old Gambetta estate known as "Les Jardies," at Ville D'Avray, is a work of the sculptor Bartholdi, says *La Semaine des Constructeurs*.

M. Bartholdi is too well known to have to be introduced to our readers. Everyone has heard of the colossal work in high relief sculptured at the base of the fortress of Belfort, to immortalize the heroic defense of the place by Colonel Denfert-Rochereau, and at the same time keep fresh the hope of future vengeance. It is a lion, ready to spring, contemplating the pass in the Vorges through which any enemy to France must enter. What, however, is best known to the general public, is Bartholdi's Liberty Lighting the World, which statue was presented to the American republic as a token of friendship, and which placed upon a base of which our distinguished confrère M. Vaudremer was the architect (*sic*) serves as a lighthouse for the port of New York.

Today M. Bartholdi gives us a new work, dedicated to the memory of Gambetta, who, as all know, died at his estate of Les Jardies, which was for a long time the home of Balzac. The tribune is represented as holding in his arms and pressing to his breast the remains of his country's flag.

At the base of the plinth carrying the statue is an antique altar upon which burns the flame of sacrifice, and at either side of this are crouched Alsace and Lorraine. Lorraine presses to her bosom with a movement of defense the child which foreigners are trying to tear from her. Alsace, with one hand raised, points out to her son the



THE GAMBETTA MONUMENT.

organizer of the national forces. The plinth bears this inscription, "To Gambetta, by the grateful people of Alsace and Lorraine." Around the monument is a balustrade which is one-half of an ellipse, each one of whose pilasters is surmounted by the coat-of-arms of one of the principal towns, stolen from France by the treaty of Frankfort, Metz, Strasbourg, etc. The monument is built on a terrace upon the roadside, and on the retaining wall are placques of bronze and marble bearing these inscriptions: Pro patria, In luctu spes, etc.

It is to be noted that the architectural portion of the monument was also designed by M. Bartholdi. The ensemble has possibly gained greater unity, and we are particularly interested by the fact that the love for the piece of statuary, so frequently the only preoccupation of the sculptor when he works with the architect, did not carry M. Bartholdi away. The totality of the monument is extremely satisfactory, blending an easily comprehended symbolism with a very sincere tenderness not exempt from enthusiasm — all of which is extremely difficult to nowadays express.

The bronze statue of the orator was cast at the works of Thiébaut. The two groups of Alsace and Lorraine are in white marble. The stonework is of Lorraine stone up to the socle, which is of red sandstone, from the Vosges.

Underneath the pedestal of the statue is a small chamber, on one side of which a black marble tablet marks the spot behind which Gambetta's heart was placed in a casket made of wood from Alsace, the marble bearing the inscription, "Here rests the heart of Gambetta."

Pessimists may complain bitterly of our political parties, without, perhaps, understanding that these divisions are indispensable to progress. There is, however, one common ground upon which the representatives of all shades of opinion may meet, and one idea to which they are all equally devoted; one word which wakes, even in the breast of the most selfish, a sentiment of sacrifice and devotion, and that word is fatherland. Deputies and senators of all parties attended the unveiling of the monument and the transfer of it to the state by M. Scherer-Kestner, in the name of the Alsatian committee.

GOVERNMENT ARCHITECTS' SERVICES IN FRANCE.

The services of government architects in the existing public buildings of France being upon such a different footing from that of America, some extracts published November 29 in *La Construction Modern*, from the official decree relative to the reorganization of this service is interesting, particularly in view of possible changes in our own system, of a supervising architect having charge of all buildings already constructed as well as those in course of erection. The architects named in the following decree have no connection with the erection of new buildings, that work being ordinarily by open competition under certain well defined rules.

The employes of the architectural service of the public buildings and national palaces will comprise—

The general inspectors, the chief architects, the inspectors of works, the inspectors of repairs, the sub-inspector of works, the keepers of the lists, the auditors, the clerks of the works, the draftsmen and the gardeners.

The general inspectors, four in number, shall be appointed by the president upon recommendation of the minister of public works, and they shall be chosen from the chief architects, their pay being $1,200 per annum each. They are ex-officio members of the general council of public buildings, and also are placed each at the head of a division of service, and in this position give advice to the minister upon the propositions made by the chief architects. They shall see that all work is artistic and executed according to approved sketches; also exercise a general supervision of all the buildings included in their division. They shall retire at the age of seventy, although they may be appointed honorary general inspectors at that age.

The chief architects are appointed by the minister upon recommendation of the committee of general inspectors, and should be chosen from the inspectors of works except in a few particular cases, when this civil service rule is not applied. The pay of the chief architects is by percentage upon the work executed—being one per cent for ordinary repairs and three per cent for new work or very extensive repairs. The office and draftsmens' expenses are all paid in addition by the government. The chief architects' duties consist of making sketches, drawing plans, preparing estimates, of the superintendence of work confided to their charge; and they shall especially see that the sums voted by government are properly used and estimates not exceeded. They shall retire at seventy years of age, although by special decree they may be retained longer, when they are in charge of a new building or are making repairs in one of which they were the original designers. The inspectors of works are appointed by the minister and must be upon recommendation of the interested chief architects. The persons eligible to this position must be either sub-inspectors of works, with at least one year of service, or they may be those who have obtained the prize of the "grand prix" at the École des Beaux Arts. The duties of these inspectors of works shall be as assistants to the chief architects, and their pay shall be fixed by ministerial decree.

The inspectors of repairs are divided into six classes, with pay ranging from $480 to $800 per year, and their promotion from one class to the other requires at least two years' experience in the preceding class. They may be attached to several buildings, and in case of extensive repairs their pay increased according to the importance of the duties.

The sub-inspectors of works are appointed by public examination and competition of candidates.

The minister of public works has just appointed a special commission composed of the most eminent French architects (their names having been previously recommended by the Central Society of Architects) for the purpose of adopting uniform rules for testing strength of materials, and the units to be used in making comparisons. Up to the present time such experiments have been extremely unsatisfactory and tests made by different parties varying most materially, so that architects are greatly in the dark as to the safety loads that may be placed upon the different stones and metals commonly used in France.

Southern Chapter of the A. I. A.

AN important movement in the line of Chapter organization was consummated at Atlanta, Georgia, on February 17, in the formation of the Southern Chapter of the American Institute of Architects with a charter membership of thirty-two practicing architects residing in the southern states. A constitution and by-laws were adopted, and the following officers were elected:

President—A. C. Bruce, Atlanta, Georgia.

Vice-president—L. F. Goodrich, Augusta, Georgia.

Secretary and Treasurer—W. P. Tinsley, of Lynchburg, Virginia.

Directors—D. B. Woodruff and P. E. Dennis, of Macon, Georgia; A. D. Helmic, of Birmingham, Alabama; A. McNixon and Thomas H. Morgan, of Atlanta, Georgia.

A committee was appointed, consisting of A. McNixon, D. A. Helmic and P. E. Dennis, on the regulation of the practice of architecture.

*Translated and arranged by W. A. Otis, architect.

The American Institute of Architects on State Chapters.

A CIRCULAR letter which has just been issued by Secretary Dankmar Adler, to members of the American Institute of Architects, shows that the Board of Directors have expended a large amount of thought upon the solution of the State Chapter problem. It deals with the subject as follows:

"The problem of the relations of state Chapters to the Institute and to local Chapters presented itself at the Consolidation Convention of 1889. Its solution was then referred to the Board of Directors, by the Board of Directors back to the Convention of 1890, by the Convention of 1890 back to its Board of Directors, from this Board of Directors back to the Convention of 1891, and again the present Board of Directors finds itself with this problem—a legacy of the amalgamation of the Western Association of Architects with the American Institute of Architects—still unsolved.

"The present Board of Directors has progressed sufficiently with its investigation as to warrant the statement that this matter cannot be disposed of, under the Constitution and By-Laws of the Institute, by the action of any Board of Directors, but that it must be determined by a convention of the members of the Institute. In preparation for the final disposal of the subject at the next convention, and as information to those Fellows of the Institute who have not been members of the Western Association of Architects, the following statement is submitted:

"The brilliant career of the Western Association of Architects, founded in 1865 and amalgamated with the Institute in 1889, was in a great measure due to its component state associations of architects which united almost all the reputable practitioners, not only of the western states but many from the South and the East in individual state organizations and through them into affiliation with the Western Association. These state associations were useful in two directions, first, in promoting within our ranks a degree of harmony, goodwill and fellowship, thus raising our self-esteem and commanding the respect of the outer world; second, in establishing an official representation of our profession at large before state legislative bodies, courts, etc. It is quite natural that those who, through the instrumentality of those state associations, assisted in developing the healthy *esprit de corps* among architects and raised their standing before their respective communities, should be loth to witness the decadence of their influence and standing by reason of their changed relations and conditions in the American Institute of Architects. Many of these state associations, engrafted upon the Institute in its amalgamation with the Western Association of Architects, have not fared well. With the exception of those which were consolidated with Chapters of the Institute existing in their localities, and of others which continue to exist as Chapters of the Institute, in localities where the ground had not been before occupied by a Chapter of the Institute, none retain their original vigor and vitality. Those which found themselves existing in states where there were already several local Chapters of the Institute in the larger cities which at once absorbed the bulk of the membership of the original state associations, were left with a membership scattered through the smaller cities and towns of their respective states. They were burdened by the appellation of 'State Association,' but were no longer representative of the architectural profession in their respective states. With the secession from their ranks of the practitioners in the large cities, they had lost their former status as representative bodies. Their remaining members feel that their associations have lost prestige and standing in consequence of their absorption by the Institute, and they look to the Institute for help and relief. If these State Chapters, so called, are to be restored to their former importance, they would have to be made, by the fiat of the Institute, the governing Chapters of their respective states, to which the members of all local Chapters owe fealty. This is impracticable under the Constitution and By-Laws of the Institute. These state associations, now called State Chapters, have served useful purposes, and these purposes are still of vital importance to the Institute. But however the work of these state associations may have been, their achievements are of the past; they cannot be galvanized into life for the purpose of doing over again work already accomplished. Whatever they or similar institutions are to be and to do must have reference to the present and future.

"The benefits of Fellowship in the Institute should not be confined to the architects who practice in the large cities where they are in sufficient numbers to form and maintain local Chapters. The practitioner in the smaller cities and towns should be given an opportunity to meet his fellow architects of every degree of reputable professional standing on a footing of equality and fraternity. The Institute will not attain its full measure of usefulness unless an overwhelming majority of the architects of this country are counted in its ranks; nor can it fulfill its mission as the originator and reformer of laws and of legal practice as applied to building in general and to the relations between architects, their clients and their contractors, unless there is in every state an efficiently organized body representing the architects of the entire state to take the lead in the necessary missionary work. Still, the two objects to be attained require different means for their accomplishment. In states like Massachusetts, New York, Pennsylvania and Ohio, in which there are several Chapters organized in large cities, the Institute should encourage the formation and maintenance of one or more Chapters domiciled so as to be easy of access to their members, with a view toward banding together in fellowship the practitioners scattered through the smaller cities and towns. It would be very desirable if architects residing in the larger cities whose practice brings them frequently into rural communities and smaller cities, were to become active members of these bodies, even if by so doing to sacrifice something to the elevation of the status of their profession.

"For the purpose of unifying the architects of each state for concerted action and sustained influence upon legislative enactments and legal decisions, the various Chapters in the state should unite for such purposes in a council formed of the officers or of special committees of the respective local Chapters. The expense incident to the action of these councils should be borne jointly by the various Chapters so united in a state league or council.

"The means here suggested require no amendment of Constitution and By-Laws. They require only the concerted and harmonious effort of every Fellow in the Institute. If existing Chapters in large cities show by their example that their members individually, and their profession as a whole, are benefited by the existence of these Chapters, this will form an inducement to those living away from the large cities to make an effort to unite in the formation of Chapters whose membership covers a number of smaller places. If, by the action of the Institute, all the Chapters existing in each state, no matter what their names may be, are placed on an equal footing, and none is given an official prerogative over another, they will under the pressure of circumstances unite in their respective states whenever occasion demands concerted action.

"Your Board of Directors, in submitting the foregoing, which is a synopsis and résumé of all that has been said and done at its meetings with reference to the 'State Chapter,' hopes that it has disposed of this question which has been so persistently brought before it and before the Institute during the past three years. If, however, any of the Fellows of the Institute are not satisfied with the solution here presented, they are requested to formulate their wishes, not in explanations or remonstrances, but in proposed amendments to the Constitution and By-Laws of the Institute, which can be then submitted in proper form to the membership of the Institute at large and finally to the *next convention, as the place for holding which the directors have fixed upon Chicago* under the authority granted them by the last convention. The time for holding this convention has not yet been determined upon, but it will probably be at an earlier date than has heretofore been customary."

The Competition for the Chicago Public Library.

IN this number the accepted design for the Chicago public library is illustrated. It is one of half a dozen of the thirteen sets submitted that may be said for the sake of argument to have been equally good, the same being true regarding the reputations of the firms submitting them. That the striking similarity that impressed the casual observer as being characteristic of all the designs may be explained, and that the reader may make his own criticism, the "information for architects" issued by the Board of Directors is given in full.

INFORMATION FOR ARCHITECTS.

The accompanying set of drawings, prepared under the direction of the Committee on Buildings and Grounds, shows clearly the internal arrangement of the proposed building for the Chicago public library, as determined upon and as adopted by the Board of Directors. In respect to these drawings the Board of Directors wish to make the following statements:

The drawings were prepared with a view of—first, obtaining a maximum of daylight, in conjunction with a maximum of floor space; second, dividing the building into fireproof compartments by means of fireproof floors and brick or tile division walls; third, providing for future additions, so as not to interfere with the functions of the library, nor to mar the external appearance of the building.

These drawings show—first, an economic allotment of space to the different departments of the library; second, the distribution, arrangement and interdependence of these various departments.

Conditions limiting the occupation of the site on Dearborn park, and construction of the building, are—first, an agreement entered into with the abutting property owners to keep back fifteen (15) feet from the line of Randolph and Washington streets and Dearborn place respectively; second, an agreement with the same parties, to have one of the main public entrances to the library on Washington street, and one on Randolph street; third, an agreement entered into with the Grand Army Hall and Memorial Association of Illinois to provide a space of 15,000 square feet on the second floor of the building for the purpose of such memorial hall, etc.; fourth, the necessity of placing book or "stack" rooms on the Michigan avenue front, because of its superior light-advantages.

Further, the Board of Directors wish to state that in making designs for the building, the following points are not to be lost sight of: First, the internal arrangement as determined upon must be preserved; second, the building is to be a masonry structure as opposed to a steel-frame and brick-shell construction; third, a classic order of architecture, without dome or tower, is to be employed and is to be executed in granite or Bedford bluestone. The exterior shall to a degree make known the purpose of the building, and it should convey to the beholder the idea that it is an enduring monument worthy of a great and public spirited city.

Minor considerations, to be kept in view, are the following: First, a general plan for heating, lighting and ventilating the building has been adopted; second, water facilities, service rooms and toilet rooms have been provided for where necessary; third, the roof is to be of low pitch, and it is to shed rain-water toward the interior courts; fourth, the windows being stationary, and having to be cleaned from the outside, the sill courses are to present a ledge wide enough to give room for the window-cleaners; fifth, it may be stated that the grouping of the windows is determined by the aisles between the book-cases so that they may get all the light possible.

In respect to the cost of the building, the Board of Directors wish to state the following: First, the cost of the building, the floors and roofs, as well as the interior decorations, must not exceed $1,200,000; second, the above sum does not include the cost of machinery, light, heating and ventilating, nor the cost of book-cases and furniture, but; third, the sum named must include commission of architects, premiums, and every *other* item of cost, except the Board's own superintendence; fourth, in case it may be found, after procuring estimates on a set of plans selected, that the cost will exceed the sum named above, such plans will be rejected, without compensation to their author, and, instead, the Board of Directors will obtain plans better suited to their requirements.

In respect to the competitive designs to be furnished, the Board of Directors wish to state that they must consist of the following sheets: Sheet No. 1, elevation on Washington street and elevation on Randolph street; sheet No. 2, elevation on Michigan avenue; sheet No. 3, section through center axis of building, looking east; sheet No. 4, section through center axis of reference room, looking east; sheet No. 5, section through main staircase on Washington street looking north, and section through center axis of reading room looking north; sheet No. 6, perspective from the southeast corner of building and at an angle of 30 degrees with Washington street front.

Further—all drawings required must comply with the following conditions, if they are to be received and considered: First, all drawings must be made only

to a scale of ⅛ of an inch to 1 foot; they must be simply line drawings, without shading, drawn in India ink, on white paper of antiquarian size; second, the walls of the building in sections must be blackened with India ink; third, the perspective is to be a clear and simple line-drawing, the plan of picture being taken through the vertical line of the southeast corner; this plan of picture must form an angle of thirty degrees with the Washington street front; fourth, only one human figure is allowed on the perspective, and any embellished drawings or perspective will be rejected; fifth, the sheets of drawings must be numbered as above stated, and the numbers must be placed in the right hand corner at the bottom of each sheet; sixth, a type-written description, not to exceed three pages of legal cap paper, must accompany each set of drawings, giving as clearly and as concisely as possible, such information concerning the material and methods of construction, decorations, etc., as cannot be shown on drawings; seventh, the privilege is allowed to make additional plan or perspective drawings which may be necessary, in the judgment of the designers, to clearly illustrate any part of the building, subject to the condition that they be made on extra sheets like those required, but lettered alphabetically instead of being numbered; eighth, it is understood that if an architectural necessity shall arise, or if improvements can be suggested by the designer, the rigid adhesion to the interior plan lines, adopted by the Board, and herewith submitted, may be modified; but such changes or modifications must be presented by the architect upon separate sheets, of the same size, design and character, as is provided in the general plan, and at the same time with the other drawings; ninth, these drawings must be delivered to the secretary of the board, Mr. W. B. Wickersham, before noon on the second day of January, 1892.

Any correspondence in reference to this, addressed to Mr. B. Moos, Chairman of the Committee on Buildings and Grounds, will receive full and prompt attention.

CHICAGO, ILL., September 25, 1891. JOHN G. SHORTALL, President.
Adopted by the Board of Directors, W. B. WICKERSHAM, Secretary.

With the above limitations it is apparent that the problem had its difficulties, and, as the building will be one of the most substantial in the country when completed, it is well that posterity should know which deserves the most criticism for any lack of monumental character they may be pleased to find in the execution. It may add to the above information that Mr. B. Moos, the chairman of the building committee, as indicated in the last paragraph of the circular, is a retail tobacco merchant.

World's Fair State Buildings.

WHEN the grounds at Jackson Park were platted for the buildings of the Columbian Exposition, the allotment of space for state and foreign governments upon which to erect headquarters was carefully considered. A large area was finally given to this purpose at the north end of the grounds, and has been held in reserve for the different governments. It has become necessary for the Director-General to issue a circular letter of notification which in effect states that those that do not wish to avail themselves of the space assigned to them should at once communicate the fact, and those who do, likewise, so that the ground need not be longer reserved but be devoted to other purposes. The limit of time is set for May 1. As architects, both in this country and abroad, may wish general directions regarding the planning of such buildings, the following has been prepared by the Chief of Construction for their information:

THE WORLD'S COLUMBIAN EXPOSITION.
OFFICE OF D. H. BURNHAM, CHIEF OF CONSTRUCTION.

A plot of land upon the Exposition grounds has been provisionally assigned to each state, with a view to the erection of a building upon it to be used as that state's headquarters during the time of the Exposition. As you have already been informed, before the work of building these houses can be begun, plans for them must be approved by the Director-General and by the Chief of Construction. Plans for the treatment of so much of the ground of each plot as is not to be covered by the building, must also be submitted and approved by the same officials.

In order to insure harmonious relations in the design of the various buildings to be erected by the states, the Chief of Construction offers the following suggestions to the architects engaged on these buildings:

These structures should be designed in the form of pavilions, with symmetrical and rectangular plans, except in cases where the site, at the angles of roadways, seems to require a polygonal or irregular figure for the ground plan.

All façades should be of equal importance, as they will be seen from all points of view throughout the general grouping of the state buildings.

The architecture should be dignified in style, formal rather than picturesque. Oriental designs should be avoided, as such motives will naturally be employed by the Oriental nations in the erection of their own buildings. The earlier styles that prevailed in this country, such as the architecture of the old Spanish Missions in Lower California and Mexico, can with propriety furnish the motives for the buildings of the western and southwestern states. For the eastern and southern states, buildings of the old colonial style would be appropriate, and reproduction of historic buildings would prove an interesting feature. These buildings should have more the character of club houses than buildings designed for exhibition purposes. Refinement and sobriety of treatment is to be preferred to anything that is sensational or startling in its appearance. The natural resources of each individual state can be drawn upon to furnish the material of its own building, and thus exhibit in great variety the wealth of building material, and the various uses of the same in building.

No fireproofing is required in these buildings, but wood, iron, granite, and other building stone can be combined in any way that will present an artistic and simple effect. The buildings should be as small as possible consistent with the necessary accommodations required, and should not be more than two stories in height, with low roofs. Towers and other architectural features may be employed to enhance the general effects. All the various buildings should have the ground floor as near the level of the turf as possible, say from two to three feet above the grade, which averages six feet above datum line, or about four feet above the level of the lake. Cellars, therefore, will not be possible. The ground is nearly flat, and but little change of surface will be necessary. All grading must be done and foundation trenches dug at the expense of the different states.

The soil is composed of a layer from six to eighteen inches deep of good clayey loam overlying sand. In some plots there are now growing a few native trees in fairly good condition, and everywhere there is good turf.

One of the main walks of the Exposition will give access to each lot. The houses are to be set as far back from this main walk as may in each case be found practicable. In all cases a space of at least twenty feet, generally more, must be left betwen the main walk and the house.

There should be no fences or curbs defining the lines of the various plots of ground allotted to each state, because it is not intended that these boundaries should appear at all in the general design. There should be a broad substantially flagged or graveled passage between the main walk and the principal entrance of the house. The course of this should be direct, unless a tree or seme other obstacle makes a slight curve desirable.

If the present turf shall have been well preserved while the house is building, but little more than has been above described will be necessary in the laying out and furnishing of a state plot.

Fanciful flower beds and walks will not be allowed, and the introduction of manufactured articles of stone, terra cotta, metal, or other material, outside of the buildings, is to be avoided. It is desired that the arrangements should be simple, and the broad spaces of undisturbed turf be left, avoiding all incongruous, toy-like and undignified effects. But at suitable points a few objects may be placed that will be illustrative of the botany or geology of the state occupying the plot (such as a pillar of metal-bearing rock or an interesting petrifaction or fossil of suitable size and form). Small trees of the state, or bushes or plants in tubs, set in the turf, or on simple block pedestals, may desirably be used in the same manner, but only if each of such plants is a very fine specimen of its kind, and can be presented and maintained in thoroughly thrifty condition during the entire period of the Exposition.

Small, modest signs, written in the Standard Exhibition Alphabets, may be placed before notable plants or other objects on state plots, giving their names and stating the locality from which they have been taken.

It is suggested that the selection and preparation of trees for the Exposition will be desirably begun as soon as possible, but that it will not be well to bring them to the ground before April, 1893.

The restrictions upon planting above prescribed do not apply to the use of plants on porches, balconies, window-gardens or roof-gardens of the house, nor to patios or interior courts; nor are they intended to prevent any vegetation that will be so grown as to be in contact with the walls of the house, or that will occur in narrow, trim beds bordering the approach to it, always providing that such planting is well devised with the motive of supporting, bearing out or adding grace to the controlling elements of the architectural design, and that it is always maintained in perfect condition.

The plans should show in detail all necessities for sewerage, water supply, etc., that will be required. The Exposition Company will supply sewers, water pipes, electricity, etc., to the outer wall of each building, with which connections can be made. No outside closets, out-buildings or back-yards of any kind will be allowed. There can be no general cafés or sleeping rooms, except such as are necessary for the accommodation of the attendants.

Working drawings of all designs for the state buildings must be placed on file in the office of the Chief of Construction, and his acceptance of the design, in writing, must be obtained before the work is commenced.

Preliminary studies for these buildings should be submitted to the Chief of Construction as soon as possible, in order that he may indicate his opinion before the work of preparation is far advanced.

Minnesota Chapter, A. I. A.

THE movement announced in the last issue of this journal for forming a state Chapter of the American Institute of Architects in Minnesota was consummated at the Windsor Hotel, St. Paul, on February 20. The meeting was prefaced by a well-served dinner, which was enjoyed by the following gentlemen: D. W. Millard, Cass Gilbert, W. Channing Whitney, L. S. Buffington, F. B. Long, E. S. Stebbins, E. H. Johnston, H. R. P. Hamilton, A. F. Gauger, G. W. Orff, C. A. Wallingford, J. C. Plant, F. G. Corser and R. C. McLean, editor of THE INLAND ARCHITECT, of Chicago. At the conclusion of the repast, D. W. Millard, of St. Paul, was elected chairman of the meeting in the absence of O. G. Traphagen, of Duluth, and R. C. McLean continued to act as secretary.

J. C. Plant, as chairman of the Committee on By-Laws, submitted a draft which was similar to the Constitution and By-Laws of the American Institute of Architects, the changes being those necessary to adapt it to the necessities of a state organization. The report was read in full, discussed section by section and amended and then adopted as a whole. The charter members are as follows, and are the nineteen members of the American Institute of Architects residing in the state:

E. P. Bassford,	G. M. Goodwin,	J. C. Plant,
L. S. Buffington,	H. R. P. Hamilton,	C. F. Struck,
F. G. Corser,	W. H. Hayes,	James K. Taylor,
J. H. Coxhead,	Fred Kees,	O. G. Traphagen,
W. B. Dunnel,	D. W. Millard,	C. A. Wallingford,
A. F. Gauger,	G. W. Orff,	W. C. Whitney,
	C. H. Johnston.	

The initiation fee of regular members is $5, to be paid to the treasurer within three months of date of notification, and the annual dues $10, $5 to be paid in March and $5 in February of each year. For regular members outside of the cities of Minneapolis and St. Paul the initiation fee is $2, and the annual dues $2. Regular members elected after August of each year shall pay one-half the dues for the current year. The annual meeting shall be held in December of each year, the regular meetings being held monthly upon the first Friday of each month, and as far as possible alternating between Minneapolis and St. Paul. Ten regular members shall constitute a quorum for the transaction of business. The most important section of the by-laws was amended as follows:

SECTION 2. Candidates applying for admission subsequently hereto shall accompany his Chapter application with an application for admission into the American Institute of Architects, and if admission is gained to the Chapter, the secretary of the Chapter shall forward the American Institute of Architects' application, properly indorsed, to the secretary of the American Institute of Architects.

Following the final adoption of the constitution and by-laws, the following officers were elected:

President, D. W. Millard, of St. Paul.
Vice-president, W. Channing Whitney, of Minneapolis.
Secretary and treasurer, H. R. P. Hamilton, of St. Paul.

Owing to the lateness of the hour, the election of the two directors provided for in the by-laws, and all further business was postponed, and the meeting adjourned to the first Friday in March at Minneapolis.

ERNEST ALBERT, Oliver Dennet Grover and Walter Burridge, scenic artists of McVicker's Theater and three of the best known painters in Chicago, have effected a long lease on the Casino building and grounds, and a short time ago the work of remodeling the structure to meet the requirements of a scenic studio was begun. The building will have over 12,000 square feet of working area, and besides 2,500 square feet available for storage and sewing rooms. These generous proportions will enable the painters to work on twenty paint-frames, ranging from 56 by 35 feet to 30 by 20 feet, at once. The studio will be so large that it will permit the artists to introduce a novel feature in the art of painting scenery, which has been in their thoughts for some years. That is, after a scene is painted, it can be hung, set and lighted in an open space the full size of any stage in this country, so that a manager can not only inspect it as an entirety, and thus suggest alterations, but he can bring his company to the studio and rehearse with the new scenery.

A Proposed Technological Institute.

THE necessity for a school for the teaching of electrical engineering led the Electrical Club of Chicago to consider the establishment of a school embracing all of the physical sciences. This resulted in the club inviting representative architects and civil and mechanical engineers on February 16 to an informal dinner to meet a committee of the club for consultation.

There were present President Harper, of the University of Chicago, and Doctor Goodspeed, the secretary; W. L. B. Jenney and Dankmar Adler, representing the architects; R. C. McLean, of THE INLAND ARCHITECT; C. T. Purdy and John F. Wallace representing the Western Society of Engineers; W. A. Kriedler, of the *Western Electrician* and Messrs. Besley, Terry and Parker of the Electrical Club.

The situation was reviewed at length and Doctor Goodspeed, on behalf of the University of Chicago, stated that if a building and apparatus were provided the university would set aside a sum equal to that expended, and expend the interest each year for instructors.

It was finally decided to ask the several societies interested each to appoint a committee of three to form a joint executive committee.

The Carnegie Library Competition.

THE circular letter issued July 1, 1891, by James B. Scott, president of the board of trustees of the Carnegie library at Pittsburgh which was noted in this journal and in which the successful design was published in THE INLAND ARCHITECT for January, was responded to by ninety-six architects who submitted one hundred and two sets of plans. This competition, which was of such interest to the profession and called into competition so many of the most notable architects in the profession, was one of the best conducted that the country has seen for several years. The alphabetical list of competitors is as follows:

Andrews, Jaques & Rantoul, Boston.
Anonymous.
Bailey & Truiscott, Philadelphia.
Baker & Dallett, Philadelphia.
Balfour, James, Hamilton, Ontario.
Bickell, Charles, Pittsburgh.
Boring, Tilton & Melton, New York.
Boyd, Thomas, Pittsburgh.
Brooks, Robert T., Detroit.
Brown, C. Porter, Sioux City, Iowa.
Burgeois, L. J. B., Chicago.
Carey, George, Buffalo.
Clapp, Granger & Rogers, Chicago.
Clark, T. M., Boston.
Cooper, Frank I., Pittsburgh.
Dean, Cyrus F., Erie.
Decker, W. H., Philadelphia.
Dehli, Arne, New York.
DeHowarth, Jul., Chicago.
Dennis, W. H., Minneapolis, Minn.
Denson, James F., Washington.
Elzner, A. O., Cincinnati.
Evans, David, Philadelphia.
Faxon, John Lyman, Boston.
Finkle, Alexander I., New York.
Ford, Lyman A., New York.
Fraser, W. S., Pittsburgh.
Fumen, Evans & Co., Philadelphia.
Gardner, F. M., E. G., & H. M. G., Chicago.
German & Young, Duluth.
Gilbert, Edwin, Philadelphia.
Gordon, Bragdon & Orchard, Rochester, N. Y.
Greenawalt, W. E., New York.
Hale, Willis G., Philadelphia.
Heckert, Sidney F., Pittsburgh.
Holabird & Roche, Chicago.
Hopkins, Alfred H., New York.
Horton, J. D., New York.
Hutton, Addison, Philadelphia.
Jennings, Arthur B., New York.
Keighorn, P. I., New York.
Kennedy, R. G., Philadelphia.
Krais & Richards, New York.
Lehman & Schmidt, Cleveland.
Linfoot, Benjamin, Philadelphia.
Longfellow, Alden & Harlow, Pittsburgh.
Madden, G. R., New York.
Magonigle, Harold, Boston.
Mann, George R., St. Louis.
Mason, M. D., East Providence.
McDonald, E. F., Detroit.
McDonald & Ogeby, Omaha.
Miller, D. Knox, Pittsburgh.
Morris, Montrose W., New York.
Morris & McEwen, Boston.
Mott, Charles T., New York.
Murdock, Charles W., Washington.
Myers, E. E., Detroit.
Nattress, George, Philadelphia.
Ord, John, Philadelphia.
Orth, George S., Pittsburgh.
Osterling, F. J., Pittsburgh, two sets.
Palliser, George, New York.
Patterson, L., Allegheny.
Peabody & Stearns, Boston.
Phillis, Clarence L., Pittsburgh.
Pickering & Carter, New York.
Porter, Cyrus K., Buffalo.
Pulis & Hayden, Denver.
Raymond & Hornbostel, New York.
Reid Brothers, San Francisco.
Rogers & Totten, New York.
Roth, Emery, Chicago.
Schuetz & Goenne, Washington.
Scott, George, Ann Arbor.
Scott, Peoples & Hall, Pittsburgh.
Shepley, Rutan & Coolidge, Boston.
Sibley, J. A., Washington.
Slocum, S. G., New York.
Smedley, Walter, Philadelphia.
Staub, C. L., Cheyenne, Wyo.
Stein, J. T., Pittsburgh.
Stillburg, Joseph, Pittsburgh.
Thorp & Knowles, New York.
Trowbridge & Wilkinson, Boston.
Tuckerman, A. L., New York.
Wagner, A. S., Williamsport, Pa.
Walter, W. Mead, Chicago.
Wells, Edmond B., New York.
Wheeler, H. H., Syracuse.
Wheelwright & Haven, Boston.
Whittal & Campbell, New York.
Williams & Otter, Dayton.
Wilson, J. Appleton, Baltimore.
Wood, W. Halsey, Newark, N. J.
Yarnall & Goforth, Philadelphia.

The detailed examination of all the plans was left to a special committee, which made a verbal report to the full library board. The result was the selection of the plans by Longfellow, Alden & Harlow, of Pittsburgh and Boston, and their appointment as architects of the building, receiving five per cent upon the cost of the work, estimated to cost $700,000.

The competitors adjudged next in merit were Frank I. Cooper, of Pittsburgh; W. S. Fraser, of Pittsburgh; Kreis & Richards, of New York City; George R. Mann, of St. Louis, Missouri; Shepley, Rutan & Coolidge, of Boston and James T. Steen, of Pittsburgh. These architects received $2,000 each and their drawings were returned to them.

Association Notes.

THE CHICAGO ARCHITECTURAL SKETCH CLUB.

The regular meeting of the Chicago Architectural Sketch Club, on March 7, was largely devoted to a dissertation by Paul C. Lautrup, the architect, draftsman and artist, upon "Vanishing Points." Mr. Lautrup, whose reputation in the line of draftsmanship is second to none, gave the club one of the most enjoyable evenings of the year. Bright, witty and incisive in his remarks, he was frequently encored. In concluding, Mr. Lautrup spoke forcibly upon the habit which seems to him to have become universal among perspective draftsmen to falsify. He sketched the laid out perspective, dwelling on its absolute truth, and then showed how the draftsman, for the sake of gaining approval for a "rattling good perspective," curves a roof line, shades where no shading should be found, and in other ways embellishes his perspective with an artistic finish which entirely destroys all truth as found in the elevation.

Mr. Lautrup spoke of his first drawing, made while in the supervising architect's office at Washington, of the Evansville, Indiana, postoffice, and published in the *American Architect* "so many years ago that you who are before me could hardly have reached the dignity of pants," which was executed with T square, triangle and line pen, but which was a good perspective today because it was photographically perfect. The speaker pleaded for honesty in drawing rather than artistic rendering to win a first prize in a club competition.

At the conclusion of his remarks Mr. Lautrup was enthusiastically applauded, and a hearty vote of thanks was accorded him for his enjoyable and instructive discourse.

The executive committee of the club announced through Secretary John E. Youngburg that the quotation for competition dated on the club syllabus for March 21 will be the following verse from Samuel Rogers:

"Mine be a cot beside the hill;
A beehive's hum shall soothe mine ear;
A willing brook that turns a mill,
With many a fall, shall linger near."

The result of the club competition for a design for the cover for the club catalogue was announced, eight designs being submitted.

Three new members were reported by the executive committee, and after some further business the meeting adjourned.

It should be stated that the larger part of the matter pertaining to the club in last month's issue was furnished by Secretary Youngburg, a representative of this journal having been absent from the meeting, Mr. Youngburg is an indefatigable worker for the success of the club, and is giving a large amount of time to club affairs.

New Publications.

EXAMPLES OF DOMESTIC COLONIAL ARCHITECTURE IN NEW ENGLAND: Compiled, photographed and published by James M. Corner and E. E. Soderholtz, Boston Architectural Club, Boston, 1891.

The compilers of this portfolio suggest a classification of American domestic architecture, prior to "the mania for Greek art in the early part of this century," into that of the Colonial Period, comprising work erected in the seventeenth century, necessarily crude; that of the Provincial Period, comprising work erected from the opening of the eighteenth century to the close of the revolution, showing a higher degree of elaboration and refinement, and the successful application of free classic details; and that of the Federal Period, comprising work erected in the latter part of the eighteenth and earlier part of the present century, during which time were erected the best types of our early domestic architecture — the "grand old mansion flanked with great pilasters or quoins, crowned with cornices of well-proportioned members, often richly carved, and elaborated with magnificent frontices opening into hospitable halls, with broad staircases of carved balusters and twisted newels, raised paneled doadoes and delicate cornices, enriched with dentils and modillions." The editors state that "the primary object in compiling this work was not to accumulate historical data, but rather to present in a form convenient for use and reference by architects, and those interested in architecture, some typical examples of the better class of domestic edifices, which were erected mainly during the latter half of the eighteenth century."

It is doubtful if any single architectural style in the narrow sense will grow up in this country and maintain supremacy during a long period. The conditions of climate, use and mode of life are so divergent, and the prospect of a unity in details so remote, that we may reasonably expect a continual shifting, perhaps an evolution, in architectural style. Such fashions prevail largely in the literature that is read by the great public; and architectural style is more akin to dress than to literature in those points which would lead us to expect permanency in a growing people. In any case we can at best only hope that inevitable fluctuations will be in a measure subordinated to judgment, and that the new fashions, however unlike the old, will be so handled that individual applications shall be fairly harmonious in themselves, good in their varying kind, and not wholly at war with that part of the environment that consists of creditable work of former hands. It was such a shifting of taste that brought to us the wretched jumbles of discordant features that murdered rest and put flight to beauty a few years since. Such a shifting of taste refreshed the weary vision by bringing once more into vogue the "Colonial," which at best was simple, consistent, dignified, not inhospitable, and which at worst was only bold and somewhat sepulchral, and was commonly free from fantastic freaks and tumor-like appendages. There is a strength in simple things made perfect by study, and by the right application of unostentatious detail that is often overlooked by the uneasy seekers for something aggressively bold and novel. We do not at all regard the Colonial as the one good style for domestic work, but we devoutly wish that these uneasy and artistically unprincipled architects may, at some crucial moment, chance on a good example of Colonial, and see as it were, a great light that shall disclose to them the error of their ways. To the end that this may come to pass the compilers of this portfolio have brought together fifty plates, finely executed, comprising some sixty illustrations, of which some half dozen are of the bold and supulchral order, of which some few porches and newels are on the border land of the domain of freaks, but of which the great majority are excellent in every way. There are no working or measured drawings, but the plates, reproduced from photographs, represent the feeling and character of the originals very satisfactorily.

Our Illustrations.

House for F. R. Hazard, Syracuse, N. Y.; J. L. Silsbee, architect, Chicago.

Some Old Window Guards of Paris; sketched by Frank M. Snyder, Paris.

Study for Residence of Daniel Jones, Seattle, Wash.; John Parkinson, architect.

Photogravure Plate. Residence at Rochester, N. Y.; Residence at Hyde Park, Chicago.

Accepted design for Chicago Public Library Building; Shepley, Rutan & Coolidge, architects.

The Brown Building, Omaha, Neb.; I. Hodgson, Jr., architect, Omaha, Neb., and Portland, Ore.

A Picturesque Suburban Railroad Station, Sheridan Park, Chicago; Holabird & Roche, architects.

Approved design for Maine State Building, World's Columbian Exposition, Chicago; Charles S. Frost, architect.

The Girls' Mutual Benefit Club House, Chicago; W. L. B. Jenney, W. B. Mundie and D. E. Waid, architects.

Cincinnati Architectural Club Competition, "A Lych Gate," first place, John Zettel; second place, Arthur Stedman.

Design for Chicago Elevated Terminal Railway Company's Station; S. S. Beman, architect, Chicago; a combined railway station and office building.*

Competitive design for the Carnegie Library Building, Pittsburgh, Pa.; submitted by W. S. Fraser, architect. This was one of the premiated designs.

Approved design and ground plan for the Ohio State Building, World's Columbian Exposition, Chicago; James W. McLaughlin, architect, Cincinnati; J. W. Yost, G. W. Rapp and F. A. Coburn, associate architects.

Note.—The sketch of the Franklin Statue, published in the February edition, was rendered by Charles Holloway from photograph by C. D. Arnold; Mr. Ripley's name was inscribed on it through a mistake of the publishers.

PHOTOGRAVURE PLATES.

(Issued only to subscribers for the Photogravure edition.)

Residence of M. R. Kultchar, Winnetka, Ill.; J. K. Cady, architect, Chicago.

Residence of Henry Hooper, M. D., 541 N. State street, Chicago; Francis M. Whitehouse, architect.

View in Hall, residence of Franklin H. Head, Chicago; Irving K. Pond and Allen B. Pond, architects.

View from Hall into Library, residence of Franklin H. Head, Chicago; Irving K. Pond and Allen B. Pond, architects.

Groups of Statuary for Buildings and Grounds, World's Columbian Exposition, Chicago. Three full-page plates, six groups, are given. Carl Bitter, Daniel Chester French, sculptors.

Mosaics.

AN architect of large experience, both in designing and construction, who retired from the profession a few years since, but still has a clientage in Chicago, is desirous to form a partnership with an architect of established practice, and can be communicated with through the editor of this journal in person or by letter.

Building Outlook.

OFFICE OF THE INLAND ARCHITECT,
CHICAGO, March 10, 1892.

So far as inferences can be drawn from opinions expressed by arcbitects, builders, contractors, promoters of new enterprises, bankers, railway men and business men generally who are in the habit of expressing opinions, it is safe to assert quite positively that this year's volume of business will be greater than last year's. Also that building operations will be more extensive; also tbat railway construction will be considerably greater, and that the inauguration of new industrial enterprises will considerably exceed those of last year. One of the favorable indications just at present is that the general volume of business week by week as measured against same weeks of last year, is tbat it is thirty-three per cent greater. Another favorable point is, that money is plentier in and out of banks; tbat interest is lower for ordinary loans; tbat the volume of available money is heavier, and that confidence is stronger. At the same time there is lacking something which it is difficult to define, whicb holds back enterprise, and maintains a conservatism in all business circles tbat is somewhat disappointing. It is difficult to say wbat it is that is lacking, and more difficult to announce a remedy. It is true the crops have been heavy, that the railroads are busy, that sbipping interests are prosperous, that foreign markets are taking all we can spare, but at the same time tbere is a sluggishness in manufacturing cbannels, and in some other directions that needs explanation. The farmers have done well; the cotton planters, ill. The manufacturing interests are anxiously awaiting the opening of spring trade, and believe that the volume will be heavy, and prices stronger than at present. Architects are very well satisfied with present indications. A vast amount of house building will be done throughout tbe country. The iron and steel industries are dull. Lumber interests are confident of a heavy demand as an offset to the probability of stronger prices; it must be kept in mind tbat producing capacity has been very greatly enlarged. Then to complicate matters, tbere is the threat of free Canadian lumber, against which our lumber interests are vigorously protesting. The manufacturers of building material are accumulating supplies as fast as possible, and prices are quite low, especially for all inside finishing products. The industrial conditions are bealtby, and there are no good grounds for apprehending anything else than a strong, healthful profitable year in all directions. High prices and wide margins, bowever, are a thing of the past, and good management in every department of business is now a more essential faetor for success than it ever has been.

Synopsis of Building News.

Architects are invited to furnish for publication in this department monthly or occasional reports of their new work before the letting of contracts. Reports of buildings costing less than $5,000 are not published.

Baltimore, Md.—The Board of Education are considering plans for a new school building to be erected on Harlem avenue; estimated cost $15,000.

Chicago, Ill.—Architect J. L. Silsbee: For Alexander Officer, at Kenilworth, a two-story basement and attic residence; size 35 by 60 feet; to be constructed of bowlders and frame; the interior will be of hardwood, and all sanitary appliances, hot-water heating, etc., will be put in. For J. C. Scovel, at Edgewater, a three-story and flat building; size 50 by 60 feet; cost $13,000; pressed brick and stone front and all interior improvements.

Architect John Addison: For Mrs. Nettie L. R. Jones, at Highland Park, a two-story frame residence; to have brick basement, hardwood interior, hot-water beating, etc.; cost $8,000. For John C. Schubert, on Indiana avenue, near Nineteenth street, a two-story and basement residence; to have a stone front, all improvements, hot-water heating; cost $10,000. For E. L. Baker, at Racine, Wisconsin, a three-story and basement frame residence; to have brick basement, sanitary plumbing, hot-water heating; cost $10,000.

Architects Edbrooke & Burnham: For the Kenilworth Company, at Kenilworth, a two-story store and market; to be of frame construction with stone basement, gas fixtures, etc. For Charles Morris McCook, at Kenilworth, a two-story basement and attic residence; cost $7,000; to be of frame, stone basement, gas fixtures, furnace and all sanitary improvements. For James McCombie, corner of Sixtieth and Dearborn streets, a block of three-story flats. Also making plans for the Union Church to be erected at Kenilworth; it will have a rubble stone front, slate roof, stained glass windows, furnace, etc.

Architect A. W. Cole: For John W. Salladay, at Ravenswood, two two-story frame residences; to have stone basements, hardwood finish, electric bells, speaking tubes, furnaces, etc. For John Healey, on Madison avenue and Seventieth streets, Hyde Park, a two-story flat building, to have sanitary plumbing, electric bells, speaking tubes, etc. For Lawrence House, at Jackson, Mississippi, a two-story addition. For J. J. Ironmonger, at Jacksonville, Illinois, a two-story store front; size 40 by 70 feet; cost $15,000. For H. C. McKinney, on North avenue, a three-story store and flat building; 125 feet front; to be of pressed brick and stone with galvanized iron bays and cornice, iron columns, sanitary plumbing, etc.; cost $40,000. For Mrs. Julia Moore, at Evanston, a two-story residence; to be of frame with stone basement, hardwood interior finish, etc. For Fred Dow, on Woodlawn avenue, near Fifty-third street, Hyde Park, two two-story basement and attic residences; to have pressed brick and stone fronts, gravel roof, all sanitary improvements, furnaces, etc.

Arcbitect Thomas Wing: For H. C. Walker, a seven-story building, 33 by 160 feet, to cost $60,000; to be erected at 292 to 294 Wabash avenue; pressed brick and terrra cotta front, gravel roof, steam heat, electric light, marble and tile work, elevator, etc.

Architect W. T. Lesher: For the Consumers' Pure Ice Company, at Thirty-sixth and Butler streets, a four-story cold storage and factory building, 100 by 200 feet in size; to cost abont $180,000. For J. B. Scott, on Ashland avenue, south of Polk street, a three-story apartment house, 24 by 72 feet in size; to have a Bedford stone front, hardwood finish, etc.

Architect H. B. Wheelock: For R. E. Pratt, on Grand Boulevard, near Forty-first street, a three-story residence, 25 by 78, to cost $17,000; stone front, slate mansard, hardwood finish, hot-water heating, etc. For J. M. Chaupp, at Fort Dodge, Iowa, a two-story frame residence; to have stone basement, hardwood finish, electric bells, speaking tubes, furnace, etc.; cost $7,500.

Architects I. K. & A. B. Pond: For John A. Doherty, on Forty-second street and Calumet avenue, a three-story and basement flat building; to have a front of pressed brick and stone; interior to be finished in hardwood and have all the sanitary improvements, electric bells, speaking tubes, furnaces, etc. Also making plans for remodeling and six-story addition to the College of Physicians and Surgeons, corner of Wood and Harrison streets; pressed brick and terra cotta front, gravel roof, electric light, steam heat, elevator, etc.; cost about $40,000. For the Highland Park Club, a two-story and basement club building, to be erected at Highland Park, Illinois; to be constructed of brick and shingles and have all tbe modern conveniences; cost $20,000.

Architects Huehl & Schmid: For William H. Lutz, a two-story basement and attic residence; to bave a front of pressed brick and stone, hardwood finish, etc.

Architect F. B. Townsend: For F. Krause, on Jefferson street, near Washington, a six-story factory, 30 by 150 feet, to cost $35,000; brick and stone front, gravel roof, steam heat, etc. For N. Manasse, on Kimbark avenue and Forty-eighth street, a two-story basement and attic residence, 30 by 57 feet; to be of frame witb stone basement; have hardwood interior finish, electric bells, speaking tubes, furnace, etc.

Architect F. Foehringer: For Charles Keppler, at 118 Wilton avenue, a two-story and basement residence; to have stone front, gravel roof, plate and stained glass, electric bells, speaking tubes, furnace, and all the sanitary conveniences.

Architect Fred Ablschlager: For Concordia Evangelical Lutheran church, to be erected at Belmont avenue and Laniel street; it will be 72 by 112 feet in size and have a tower 150 feet high; cost $25,000; it will be constructed of pressed brick and stone with slate roof. Also making plans for St. John's church, to be erected at Elk Grove, Illinois. To be of frame with stone foundation; size 40 by 78 feet; cost $8,000. For Mrs. Hattie S. Solomon, corner of Cleveland and Clybourn avenues; a three-story store and flat building; to be of pressed brick and stone front, etc.

Arcbitects Faber & Pagets: For W. H. Dymond, on Fulton street near Kedzie avenue; a two-story and basement residence; to have a stone front; cost $8,000. For Mrs. Carolina Niedert, at 726 Hoyne avenue; a three-story and basement flat building; to have a stone front with gables and dormers of stone, red slate mansard, galvanized iron side bays; interior to be finished in white pine and sycamore. For John T. Shayne, at 2856 Lake avenue; a two-story stable; of pressed brick and stone front, slate mansard roof; sanitary improvements, etc.; cost $7,000. For Mrs. Nelson, on the corner of Carpenter street and Austin avenue; a three-story and basement flat building; size 40 by 70 feet; to cost $15,000. Pressed brick and stone front; all sanitary arrangements, electric bells, speaking tubes, electric gas lighting, etc.

Architect C. M. Almquist: For Felix Dolder, on Adams avenue between Seventy-fourth and Seventy-fifth streets; twelve two-story houses and four two-story double houses; to be constructed of frame with stone basements, gravel and sbingle roofs, pressed brick chimneys; all the sanitary arrangements, hot and cold water attachments; cost $40,000. For A. Hansen, on North avenue; a three-story flat building; of pressed brick and stone front, gravel roof, bath rooms, galvanized iron cornice. Also a two-story brick barn. For A. Olson, at 6414 Madison avenue; a three-story flat building; to be of frame with stone basement, have all sanitary improvements, electric bells, speaking tubes, etc.

Architect William Thomas: For F. L. Baldwin, at Buena Park; three two-story, cellar and attic residences; to be of frame with stone basements, hardwood finish, stained, plate and beveled glass; furnaces, etc.; cost $18,000. For D. L. Evans; a two-story flat building; of stone and pressed brick front.

Architect R. G. Pentecost: For M. Douglass, on Sherman avenue, South Evanston; a two-story frame residence; to have stone basement, hardwood finish, stained, plate and beveled glass; all sanitary plumbing, furnace, etc.

Architects Mayo & Curry: For tbe Dexter Safe Deposit Company, at 80 and 82 Adams street, an eight-story office building, 50 by 100 feet; to cost $100,000; pressed brick and terra cotta front, gravel roof, electric light, steam beat, elevators, marble work.

Architects Snyder & Nothnagel: For Standish & Scholl, on State street near Fifty-second, a four-story and attic store and flat building; to be of stone front with stone cornice, gravel roof, copper bays, hardwood finish; cost $17,000. For A. W. McLean, at Wilmette, Illinois, a three-story frame residence; stone basement, hardwood finish, furnace, etc.

Architects Hetherington & Warner: For J. O'Connor, on the corner of Ogden avenue and Twelfth street, a four-story and basement store, flat and office building; it will have a front of light-colored pressed brick, stone and terra cotta, gravel roof, copper bays, etc.; cost $50,000. For J. W. Sheridan, on the corner of Madison street and Oakley avenue, a four-story and basement store and flat

building, 33 by 125 feet in size; to cost $300,000; pressed brick, stone and terra cotta front, gravel roof, copper bays, electric bells, speaking tubes, and all sanitary plumbing.

Architects Hyde & Castner: For H. M. Carpenter, at Monticello, Iowa, a two-story frame residence; stone basement, hardwood finish, furnace, etc. For A. L. Palmer, at Independence, Iowa, a two-story residence and stable; to cost $12,000; to be of frame, stone basement, hardwood finish, etc.; to cost $12,000. For Mr. Thompson, at La Grange, a two-story frame house. For Hines & Richards, corner of Wabash avenue and Fifty-seventh street, a three-story flat building, 50 by 82 feet in size; to cost $20,000; it will have two fronts of pressed brick and stone, gravel roof, electric bells, speaking tubes, marble work, etc.

Architect E. F. Bargman: For Louis Lagorio, corner of Cottage Grove avenue and Sixty-fourth street, a three-story store and flat building, 44 by 80 feet, to be of frame with galvanized iron bays and trimmings, bathrooms, etc.; cost $10,000. For Battaglio & De Frieri, at 200 West Taylor street, a three-story front and four-story rear addition; pressed brick and stone, sanitary plumbing, galvanized iron bay and tower, iron store front, etc. For Celloti & Guerra, at 811 West Taylor street, a three-story store and flat building, of pressed brick and stone, gravel roof, galvanized iron bays, sanitary plumbing; cost $10,000.

Architects Frederick Bauman and J. K. Cady: For T. J. Lefens and William C. Seipp, on the southwest corner of Washington and Fifth avenue, a twelve-story office building, of pressed brick and terra cotta front, to be of steel construction, have elevators, steam heat, electric light, etc.; work will be commenced about first of May.

Architect Charles S. Frost: For E. F. Getchell, on Wabash avenue and Nineteenth street, a six-story warehouse, of pressed brick and stone front.

Architect Jules De Horwath: For A. Seaverns, on Michigan avenue south of Thirty-eighth street, a three-story residence of Roman pressed brick and stone front, slate roof, hardwood finish, steam heat, and the sanitary and modern conveniences; cost $25,000. Also taken bids for the Potomac apartment house, to be erected on the corner of Thirtieth street and Michigan avenue; it will be 100 by 125 feet in size, and cost about $250,000; there will be two fronts of pressed brick, stone and terra cotta; the interior will be finished in hardwood, marble and tile, have steam heat, elevators and all the latest improvements; the design shows a very handsome building in the Flemish Renaissance. For Dawson Brothers he designed two two-story residences; to have stone fronts, slate roofs, steam heat, hardwood finish, etc.; cost $30,000.

Architects Schmidt & Franklin: For Montgomery Ward, on Seventy-fifth street and Ford avenue, a three-story store and flat building, of pressed brick and stone front; to cost $25,000. For J. Q. Adams, on Wabash avenue and Peck court, a two-story and basement store, of pressed brick and stone front; cost $30,000.

Architect H. M. Hansen: For J. H. Ehlen, at 632 Wells street, a four-story store and flat building, 41 by 80 feet; to cost $15,000; pressed brick and stone front, gravel roof, etc.

Architects Flanders & Zimmerman: A three-story school, to be erected on Greenwood avenue and Forty-sixth street; H. P. pressed brick, cut stone and terra cotta front, slate roof, steam heat, electric service, hardwood finish, sanitary plumbing, size 112 by 125 feet. Also made plans for a three-story school, 130 by 115 feet in size, to be erected on One hundred and eighth place near Wentworth avenue; pressed brick, stone and terra cotta, hard pine finish, steam heat, etc. They made drawings for a three-story and basement school, to be erected on Greenwood avenue and Geneva street; to be 135 by 115 feet in size, of pressed brick, cut stone and terra cotta front, have steam heat, etc. Also planned a three-story school, to be built on Harrison street near Sacramento avenue; pressed brick, stone and terra cotta steam heat, etc., size 135 by 115 feet. They also got out drawings for a four-story flat building, to be erected on Oglesby avenue and Sixty-third street, for E. K. Boyd; cut stone, terra cotta, copper bays, steam heat; cost $50,000.

Architects Shepley, Rutan & Coolidge are making the plans for the three-story library building, to be erected on Dearborn Park, at a cost of about $1,250,000.

Architect W. H. Drake: For R. D. Sheppard, at the northwest corner of Fifth avenue and Randolph street, a two-story addition and remodeling; to cost $100,000; pressed brick, stone and terra cotta, steel beams and columns, elevators, electric light, copper bays and cornice, and all the latest improvements; when completed it will contain seven stores and 198 offices.

Architect Arthur G. Morey: For Frank Doussang, on Vincennes avenue near Thirty-fifth street, two three-story residences; to cost $14,000; brown stone fronts, slate and gravel roofs, hot-water heating, etc. For Mrs. Harriet C. Morey, on St. James place, a three-story residence, to have a stone front, hardwood interior; to cost $8,000.

Architect H. B. Seeley has just commenced work on a ten-story warehouse, 88 by 150 feet, to be erected at the southwest corner of Fifth avenue and Jackson street, for W. W. Cole, of New York; peerless pressed brick and terra cotta front, steam heat, electric light, etc.

Cincinnati, Ohio.—Reported by Lawrence Mendenhall:

There is a perceptible and sudden lull in the business with the architects. The season opened very auspiciously, but the decrease within the last two weeks has been so marked as to cause comment and inquiry. Various reasons have been given, but no satisfactory conclusion can be reached in explanation of this unexpected dullness at this time of the year. The apprehension of strikes among the various trades, undoubtedly, somewhat retards the building interests and causes prospective builders to become wary and cautious before ordering plans for contemplated improvements. That there will be no material advance in prices and no strikes of any consequence is a safe prediction, and anyone desirous of building can proceed safely without apprehending any of these evils.

Architect W. W. Franklin reports: For Dr. A. B. Thrasher; a stable; materials: pressed brick, stone trimmings, slate roof, gas fixtures, hardwood finish, plumbing and stable fittings; cost $4,500. Also for F. A. Stegner, a residence; materials: pressed brick, slate roof, blinds, gas, stained glass, furnace, plumbing, mantels, etc.; cost $6,000. Also for Dr. R. H. Weatherhead, residence; materials: frame, stone foundation, slate roof, gas, stained glass, furnace, mantels, grates, plumbing, etc.; cost, $8,000.

Architect George W. Vogel reports for Mr. Oliver Thompson, of Newport, Kentucky, a residence; materials: pressed brick, stone trimmings, slate roof, gas fixtures, stained glass, hardwood finish, furnace, plumbing, etc.; cost $5,000.

Architects Des Jardins & Hayward report: For Mr. G. W. Elstun, a store and flat building, 66 by 93 feet; materials: pressed brick, stone trimmings, tin roof, pine finish, grates, mantels, plate and stained glass, speaking tubes, etc.; cost $25,000. Also for College Hill Sanitarium, a building 46 by 100 feet; materials: brick, stone trimmings, slate roof, blinds, steam heat, mantels, grates, plumbing, gas, etc.; cost $20,000. Also for Dr. A. Ravogli, Italian Consul, a residence; materials: pressed brick, stone trimming, slate roof, blinds, plate and stained glass, gas, furnace, hardwood, mantels, etc.; cost $10,000.

Architect G. W. Rapp reports: For Mr. Charles Kruse, of the Kruse & Bahlemann Hardware Company, a residence; materials: pressed brick, stone trimmings, inside blinds, gas fixtures, stained glass, furnace, hardwood finish, etc.; cost $12,000.

Architects Nash & Plymton report for Mr. Hiram S. Mathers, Cincinnati, a residence; materials: pressed brick, stone trimmings, slate roof, gas, stained glass, furnace, hardwood finish, laundry, wood mantels, plumbing, etc.; cost $10,000. Also for Mrs. Minnie Knight, a residence at Wyoming, Ohio; materials: frame, slate roof, hardwood finish, gas, plumbing, stained glass, furnace, wood mantels, etc.; cost $5,000.

Architects Crapsey & Brown report for Mr. M. C. Russell, Maysville, Kansas, a store building, 40 by 120 feet, five stories high; materials: brick, stone trimmings, tin roof, freight elevator, gas, plumbing, etc.; cost $25,000.

Architect Charles Dics has drawn plans for a store and flat building for Louis Wilhemy, Avondale (Cincinnati), Ohio; materials: pressed brick, slate roof, pine finish, blinds, gas, ironwork, mantels, plumbing, etc.; cost $8,000.

Architect G. W. Drach reports for J. D. Gallagher, Cincinnati, Ohio, a residence; materials: frame, stone foundations and trimmings, slate roof, gas, stained glass, mantels, plumbing, etc.; cost $6,000.

Architect John H. Boll reports for Mr. Charles Bernhardt, 165 Gest street, Cincinnati, a residence; materials: pressed brick, stone trimmings, slate roof, blinds, mantels, gas, plumbing, stained glass, etc.; cost $5,000.

Architects S. Hannaford & Sons report for Methodist Book Concern, a building, 50 by 85 feet, eight stories high; materials: stone, brick, tin roof, elevator, plate glass, office fittings, steam heat, plumbing, etc.

Cleveland, Ohio.—Architect F. H. Vogel: For Moritz Goodman, a three-story store and dwelling; size 35 by 78 feet; cost $10,200.

Denver, Colo.—Architects Lang & Pugh: For A. J. Jarmuth, three two-story residences; brick and stone trimmings; cost $55,000. Also for Reeves & Clemmes, three brick dwellings; to cost $15,000 each.

Architect J. J. Huddart; For F. S. Snell, a two-story brick residence; size 60 by 84 feet; cost $13,500.

Architects Varian & Sterner: For F. A. Thompson, a two-story brick dwelling; to cost $9,500.

Detroit, Mich.—Architects John Scott & Co.: For the Detroit Club, additional story to club building; size 60 by 120 feet; cost $10,000. For Dr. R. Casgrain, Windsor, Ontario; a two-story brick residence, with stone trimmings; to be built corner Pitt and McDougall streets; cost $6,000.

Architect Hugo Bloquelle: For Henry J. Zenders, a three-story store and flat building, brick, with stone trimmings; cost $6,000.

Architect Harry J. Rill: For Our Lady of Help Roman Catholic school house; a three-story parochial school building, on corner of Elmwood and Larned streets; cost $25,000.

Architects M. L. Smith & Son: For the First Presbyterian church society, of Mount Clemens, Michigan; a two-story brick church; cost $18,000. They have also prepared plans for the Michigan state building at the Columbian exposition, the building to be three stories high and of frame; size 80 by 120 feet; estimated cost, $20,000.

Architect Gordon W. Lloyd: For David C. Whitney, remodeling a two-story brick residence; to cost $12,000.

Architects Spier & Rohns: For Ernst Liggetko, a two-story store and flat building, pressed brick; cost $7,000.

Architect Peter Dederichs: For the Right Rev. Leo. Haid, of the Roman Catholic cathedral; a brick and granite church building at Belmont, North Carolina; size 50 by 125 feet; cost $30,000. For the Roman Catholic church at Dunnington, Indiana; a two-story church building; to cost $10,000; for self, a double dwelling, pressed brick and stone trimmings, with slate roof, to be erected on Bruch street; cost $7,000.

Architect Joseph E. Mills: For John E. Smith, Rochester, Indiana, a two-story frame residence; to cost $5,000.

Architects Malcombson & Higginbotham: For Louis Greenthal, a two-story store and flat building, brick, on Vinewood and Michigan avenues; to cost $6,000.

Architects A. C. Varney & Co.: For Herman Strassburg, a large dancing hall on Adams avenue and Witherell street; size 60 by 100 feet; cost $9,000.

Architect J. V. Smith: For William Ten Eyck, a four-story brick business block on Michigan avenue and Abbott street; to cost $16,000.

Architect J. G. McLean: For Captain James Curry, Windsor, Ontario, a two-story brick residence on Sandwich street; to cost $5,000.

East St. Louis, Ill.—Architects William Embley & Son: For F. W. Bredenkamp, a two-story store and flat building; size 40 by 65 feet; pressed brick and iron cornice and sills, composition roof; cost $6,000.

Milwaukee, Wis.—Architects Crain & Barkbausen: For the Harwood Library Association, Wauwatosa, Wisconsin, a two-story building; size 50 by 75 feet; brick and stone, slate roof; cost $8,000. For Charles P. Button, a six-story store building; size 40 by 120 feet; brick and stone; to cost $50,000. For O. P. Matthews, a two-story brick residence, 45 by 80 feet; cost $15,000.

Architects Schnetzky & Siebert: For the Evangelical Trinity Society, a brick church; stone trimmings; size 52 by 110 feet; cost $30,000. For J. C. Dick, a three-story flat building; size 50 by 100 feet; stone and brick; cost $12,000.

Architects K. C. Koch & Co. are preparing plans for an addition to the Schlitz Hotel, the building will be six stories, and it is expected to be finished this summer; cost $250,000.

Pittsburgh, Pa.—Architect V. De Beaumont: For the congregation of Ben Israel, a two-story church; brick, slate roof; size 56 by 100 feet; to cost $6,000.

Rochester, N. Y.—Architect William C. Walker is preparing plans for the building of the new Riverside cemetery; a gate, lodge and superintendent's office in one building; a chapel and conservatory in another; both are to be of stone with tile roofs; the buildings will be made as complete as possible, according to their several needs; approximate cost, $40,000. Also two frame apartment houses for Mrs. E. L. Oatley; to cost $6,000. Block of four stores and eighteen apartments, for Rawley Farrer, brick and stone, tin roof; cost $20,000.

Architects Nolan, Nolan & Stern have made plans for an addition to the Monroe County almshouse, 60 by 45 feet, four stories, brick and stone, slate roof, corrugated iron ceilings, four large lavatories with baths, water closets, shower baths, etc., with tile floors, two large fire escapes; cost $19,000. Also designs for a four-story block of stores and offices for the Prouty estate, to be built at Geneva, New York, brick and stone, tin roof, galvanized iron bays; cost $20,000. Also designs for a three-story block for Louis Maier, 30 by 70 feet, brick and stone, galvanized iron bay, tin roof; cost $9,000. Also a barn for Mr. Maier, to be of brick, 60 by 30 feet; cost $3,500. Also a new building for the Bausch & Lomb Optical Company, 72 by 184 feet, five stories; to be of brick and terra cotta, and built entirely on the slow-burning construction plan; to cost about $50,000. Also in connection with same a boiler house and engine house. For M. A. Hayes, a brick and frame residence; to cost $8,000.

Architects Jay Fay and O. W. Dryer have designed for Wilmot Castle a $4,000 frame residence. For Mr. W. D. Hallenbeck, a stone and frame residence; to be built at Geneva, New York; hardwood finish, stained glass, etc.; cost $8,000. Colonial house for Mr. Windsor, to be built at Elmira, New York; cost $6,500. House and barn for H. Hummell.

Architect J. F. Warner is making alterations in the *Post-Express* building; to cost $18,000. Also making plans for large new buildings for the Rochester Electric Street Railway Company; to be used mostly for rolling stock.

The Rochester Stamping Company will erect new buildings; to cost about $50,000.

W. H. Gorsline will construct for M. A. Culver, on plans prepared by Otis & Crandall, an extension of Culver block, at the corner of University avenue and Culver park, at a cost of $25,000.

St. Louis, Mo.—Arcbitects Shepley, Rutan & Coolidge: For the Knox estate, a four-story store block; size 130 by 185 feet; brick, with stone foundations; cost $125,000.

Architect George B. Reid: For W. P. Haggerty, a two-story store and dwelling house; stone and brick; size 32 by 50 feet; cost $5,000.

Architects P. F. Meagher & Son: For Mr. Ryan, a three-story flat building; size 60 by 70 feet; brick, with stone foundations; cost $15,000.

St. Paul, Minn.—Architects Reed and Stein report plans for a music hall to be erected at the junction of St. Peter, Market and Sixth streets; it will be six stories in height at the rear, but the showroom and the music hall above will each occupy two floors; it will have marble staircases, elevators, cold and hot air blast ventilation, and all offices will have modern conveniences; the building will be of such shape as to have a continuous front of 200 feet, with a depth of 80 feet on St. Peter street; the façade will be of rich cream-colored hard brick and terra cotta, and the building will cost about $90,000.

Buechner and Jacobson have designed alterations in the Pfeifer store block, on Wabasha and Eighth streets, by the substitution of a plate-glass front; cost $10,000.

August Botzet will erect a three-story iron, steel and glass building, 100 feet square, on the corner of Cedar and Seventh streets, at a cost of $50,000; the building will have all modern conveniences, and the contract is to let to Thomas Fitzgerald.

E. M. Smith will erect a two-story brick and stone apartment house on the east side of St. Alban's street, near Laurel, with all modern conveniences; cost $15,000.

The Pabst Brewing Company is soon to commence work on a warehouse building on Third street bluff, above Wabasha; it will have ten stories above the railroad tracks in the rear, and three stories of iron and glass on Third street, where it has 210 feet frontage. The cost will be about $75,000, and the plans will probably be drawn by Milwaukee architects.

S. S. Eaton is having plans drawn for a two and one-half story frame residence on Portland avenue; cost $20,000; it will have brownstone foundations, hardwood finish and be heated with hot water.

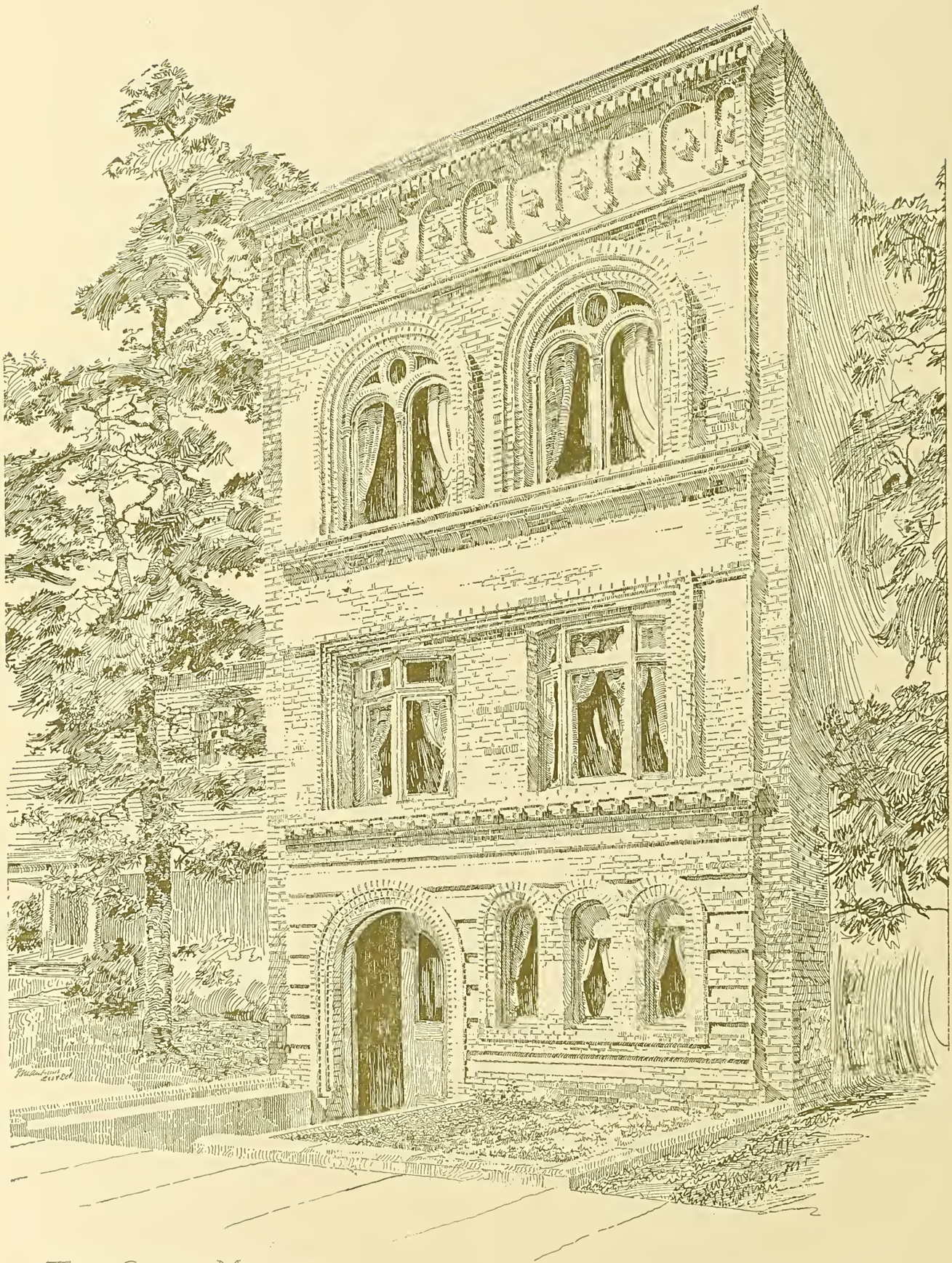


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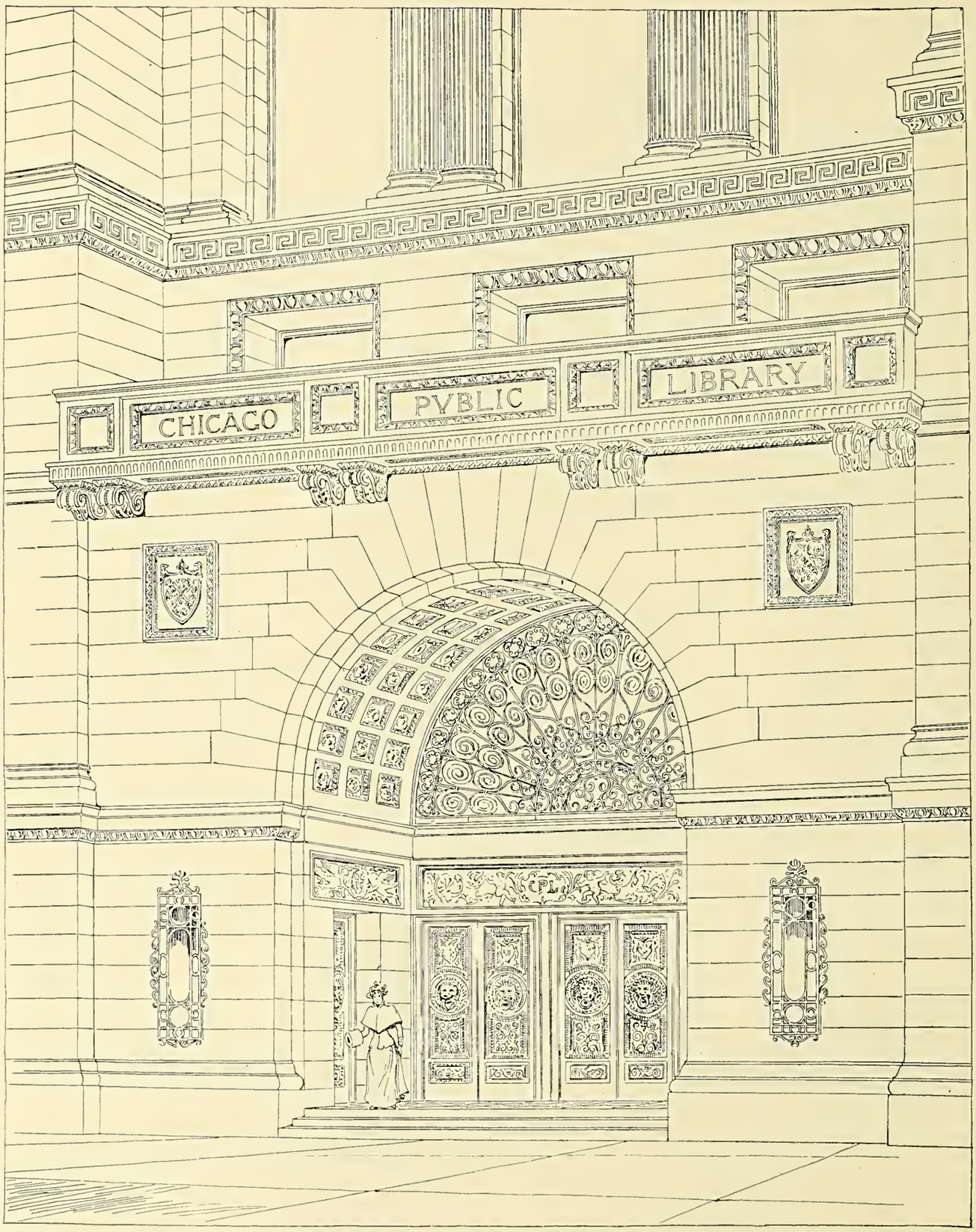
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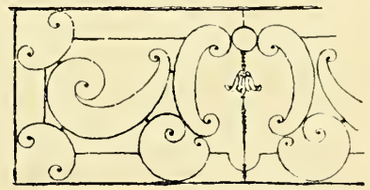
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W. B. MUNDIE,
D. E. WAID,
} ARCHITECTS.

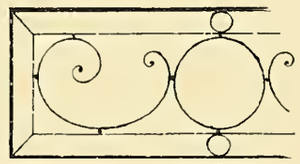


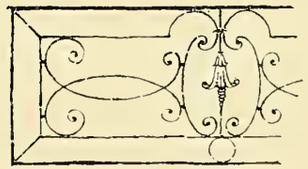
ENTRANCE, ACCEPTED COMPETITIVE DESIGN FOR CHICAGO PUBLIC LIBRARY.

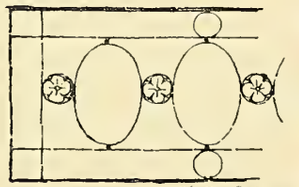
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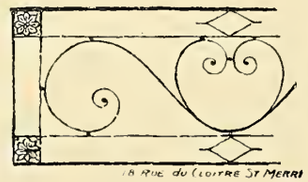
SOME OF WINDOW GUARDS OF PARIS

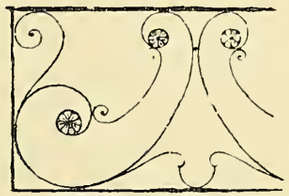

54 Rue Vaugirard

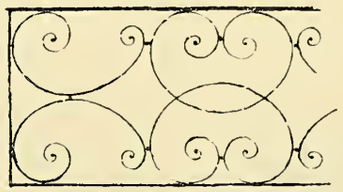

9 Rue Renard

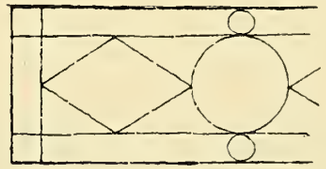

10 Rue Suger

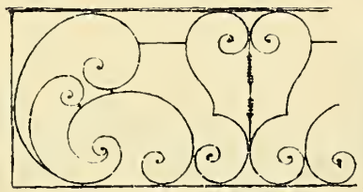

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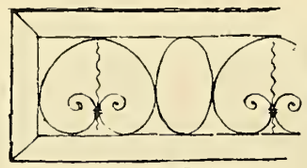

18 Rue du Cloitre St Merri


2 Avenue de l'Observatoire

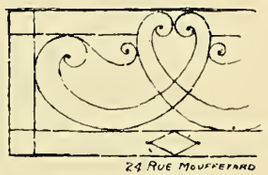

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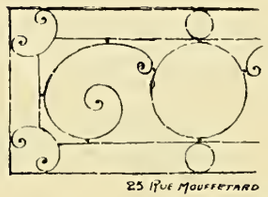

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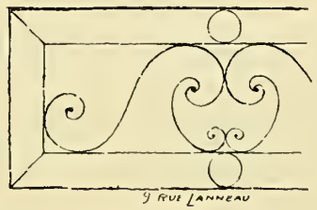

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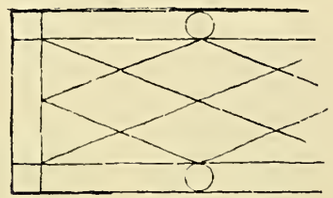

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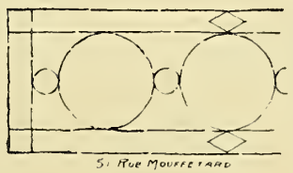

30 Rue de la Parcheminerie

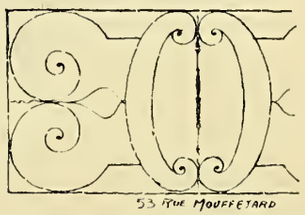

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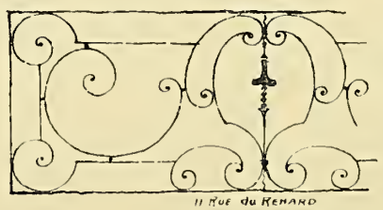

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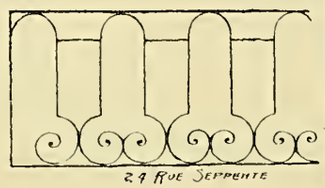

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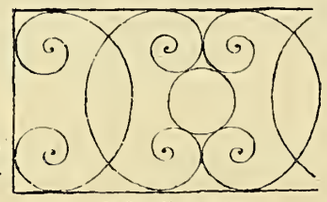

14 Rue Mouffetard


51 Rue Mouffetard

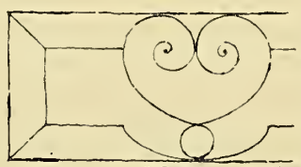

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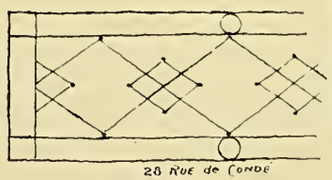

11 Rue du Renard

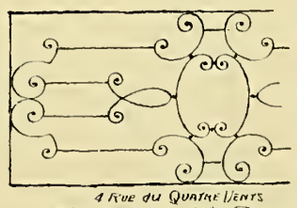

29 Rue Serpente

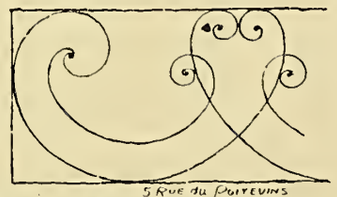

20 Rue Mouffetard


16 Rue du Jardinet

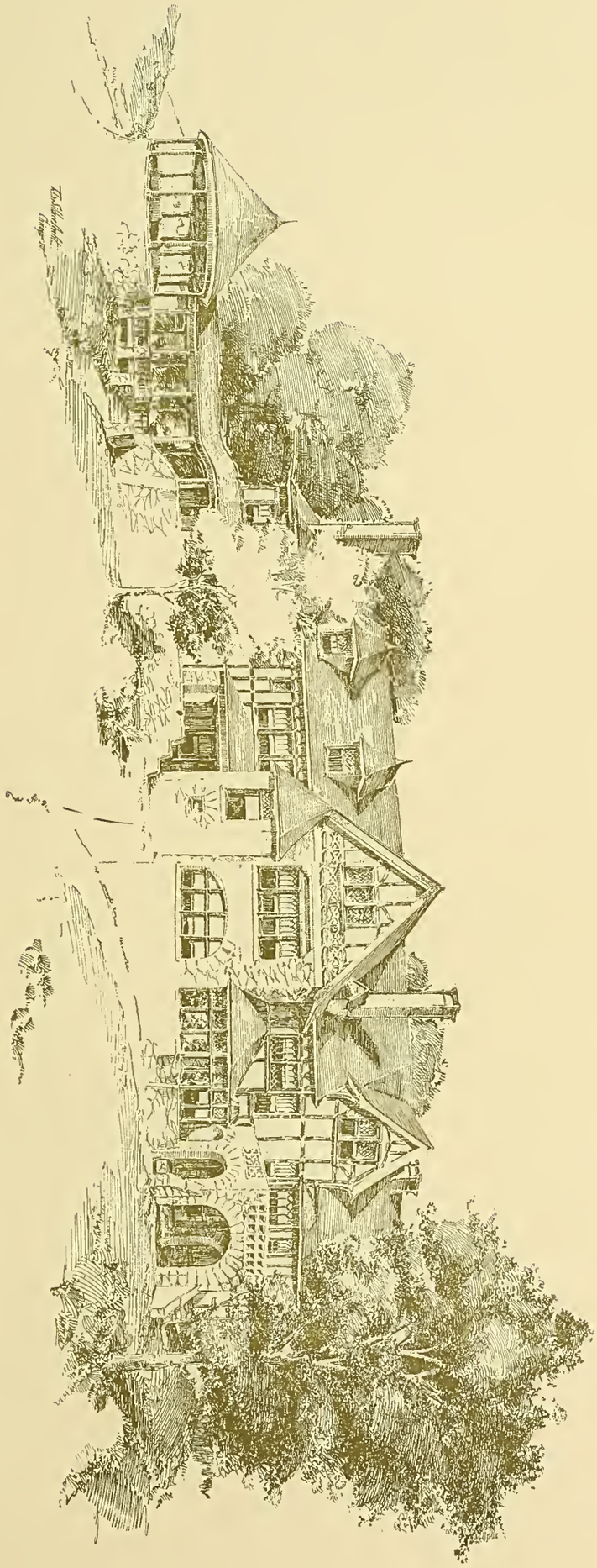

7 Rue du Quatre Vents


28 Rue de Conde


4 Rue du Quatre Vents

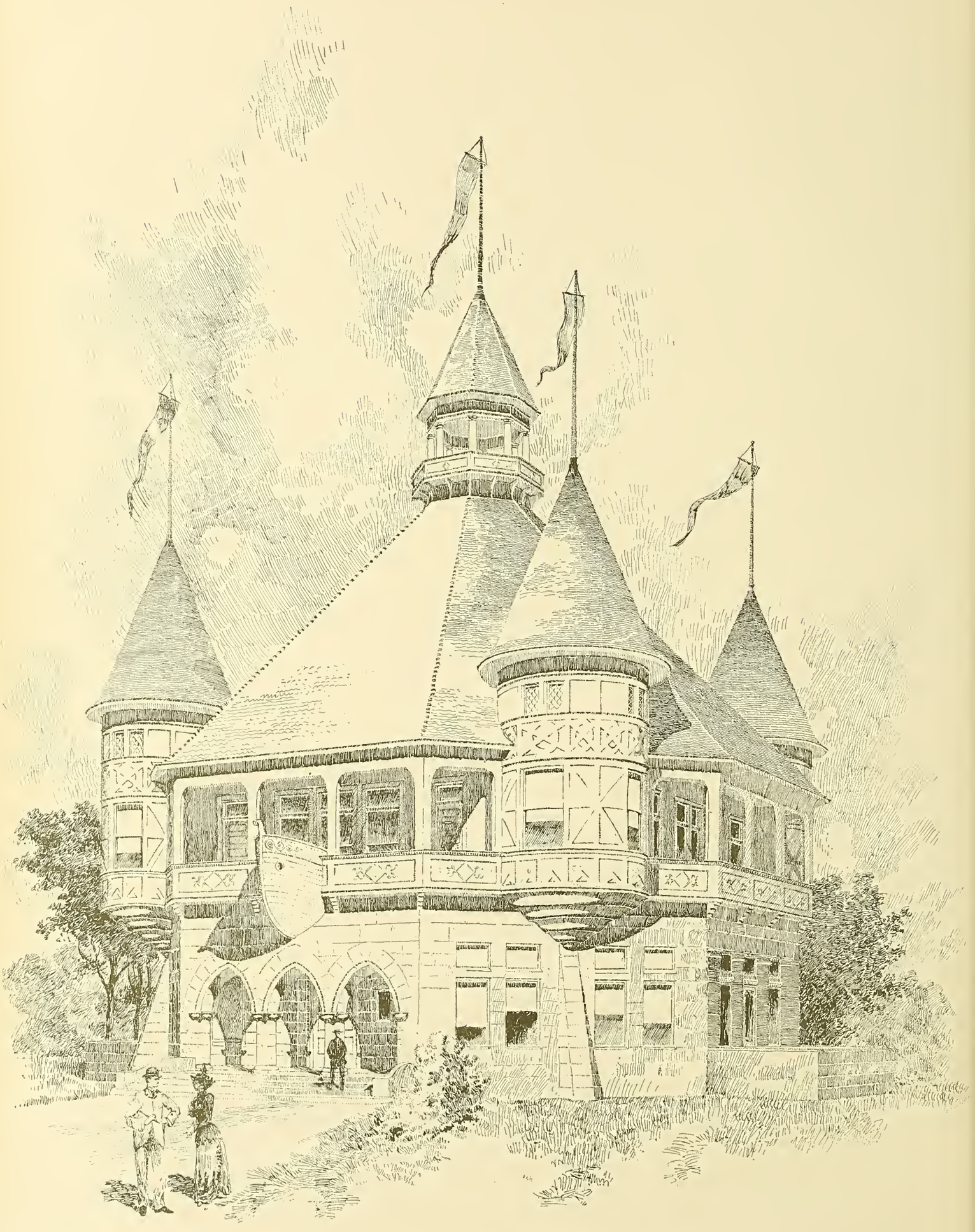

5 Rue du Puitsvins

FRANK M. SNYDER - PARIS - JULY-AUG - 91 -



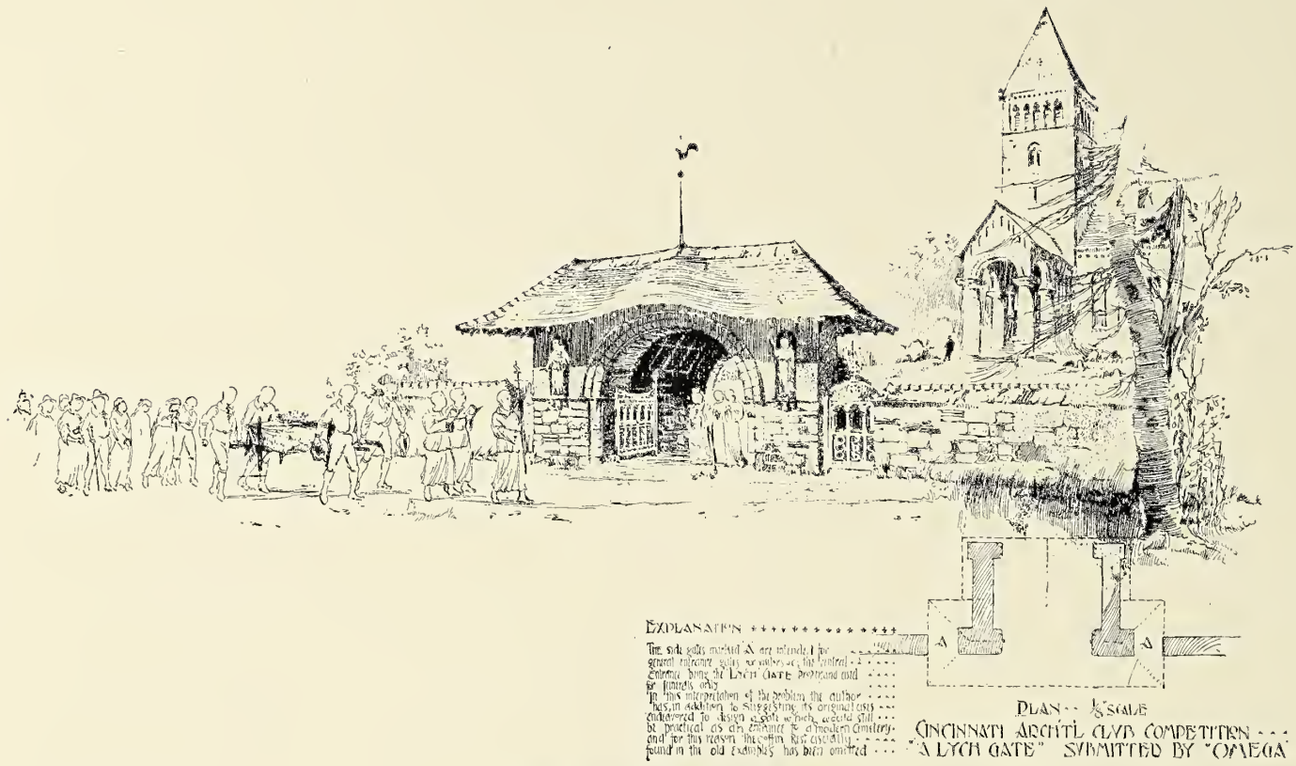
RESIDENCE FOR F. R. HAZARD, SYRACUSE, N. Y.

J. L. SILSBEE, ARCHITECT, CHICAGO.



APPROVED DESIGN FOR MAINE STATE BUILDING, WORLD'S COLUMBIAN EXPOSITION, CHICAGO.

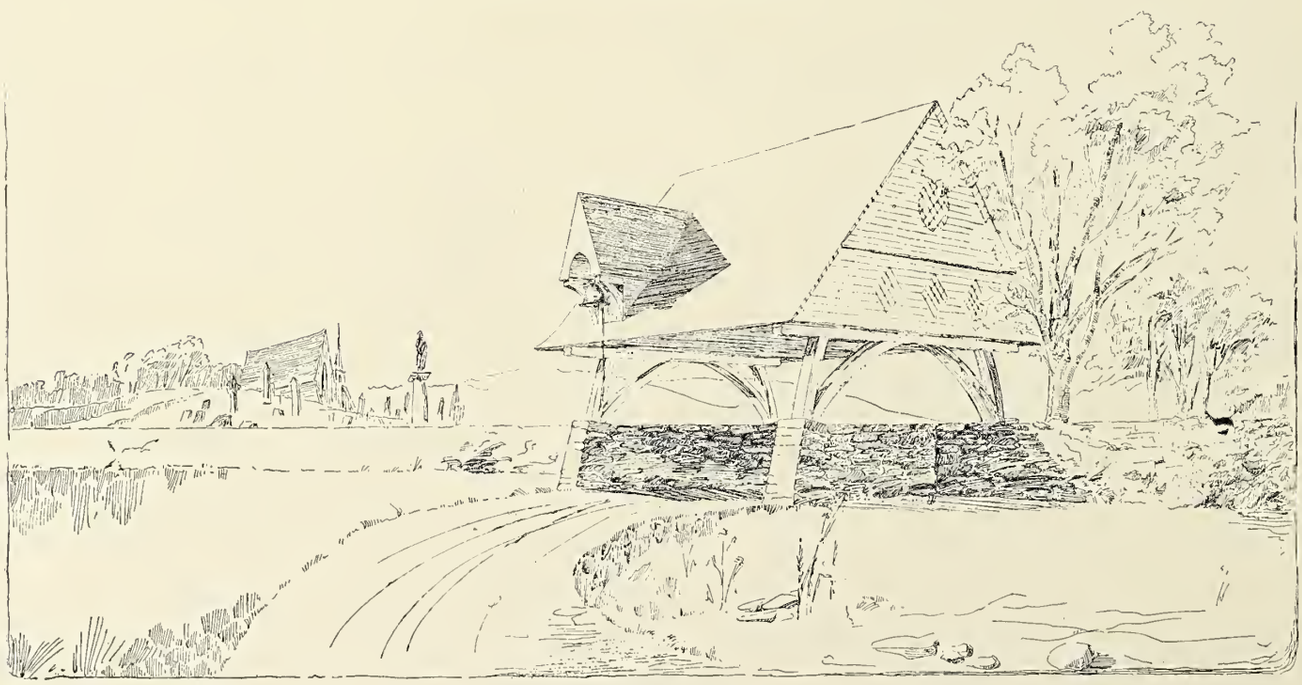
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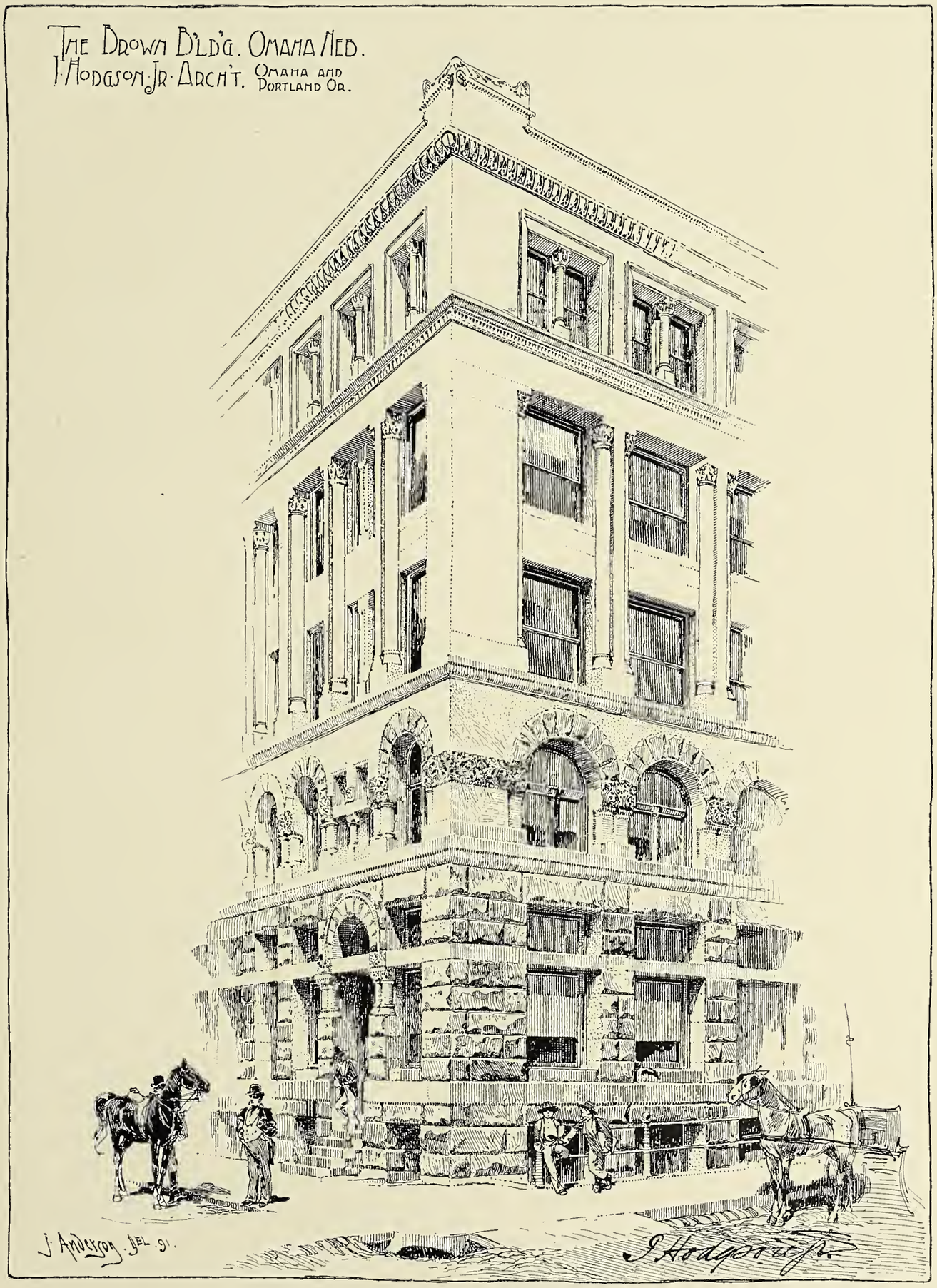
FIRST PLACE.— JOHN ZETTEL.

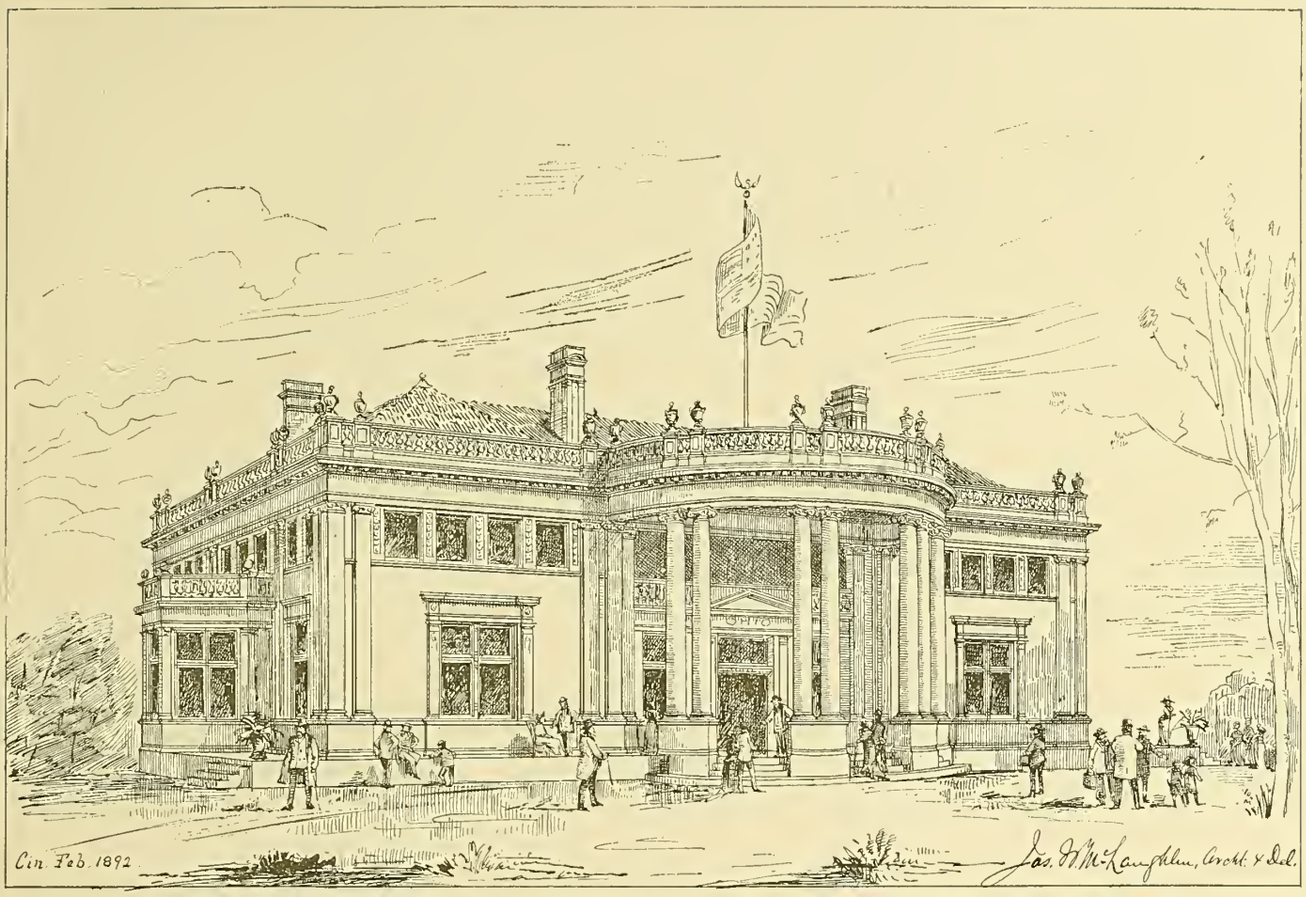


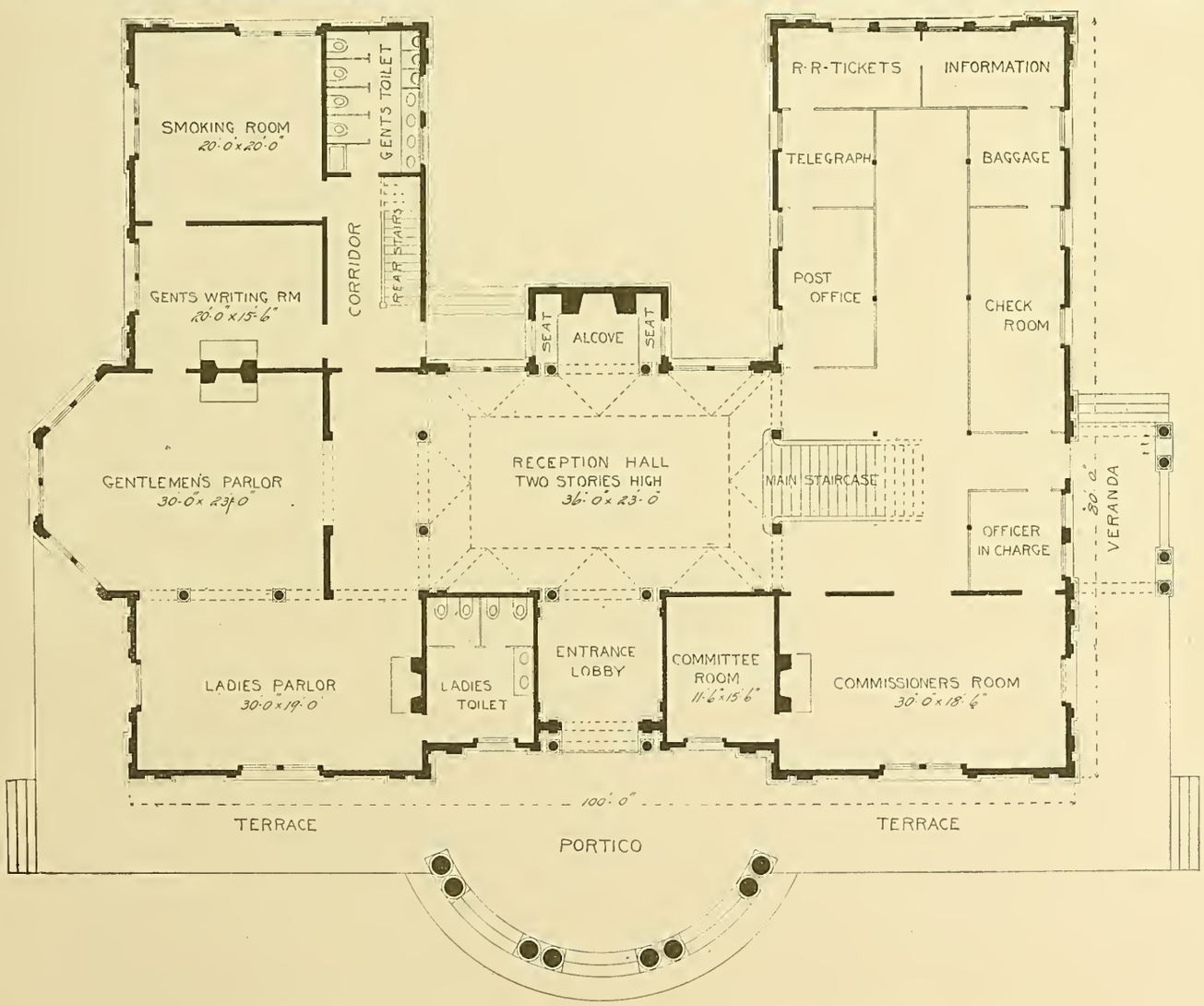
SECOND PLACE.—ARTHUR STEDMAN.



SUBMITTED BY LOUIS G. DITTOE.

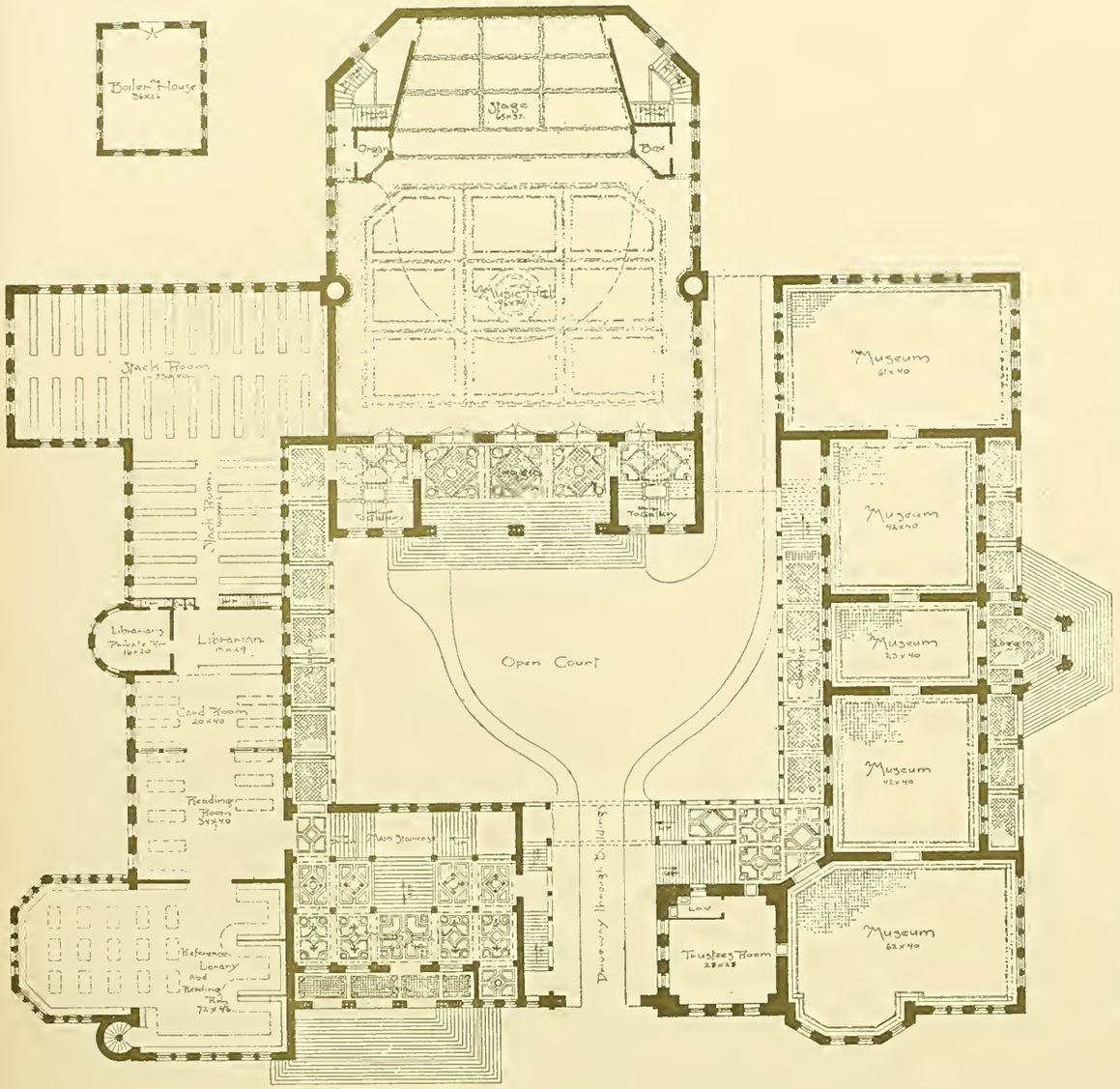

THE BROWN B'LD'G. OMAHA NEB.
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J. Hodgson Jr.

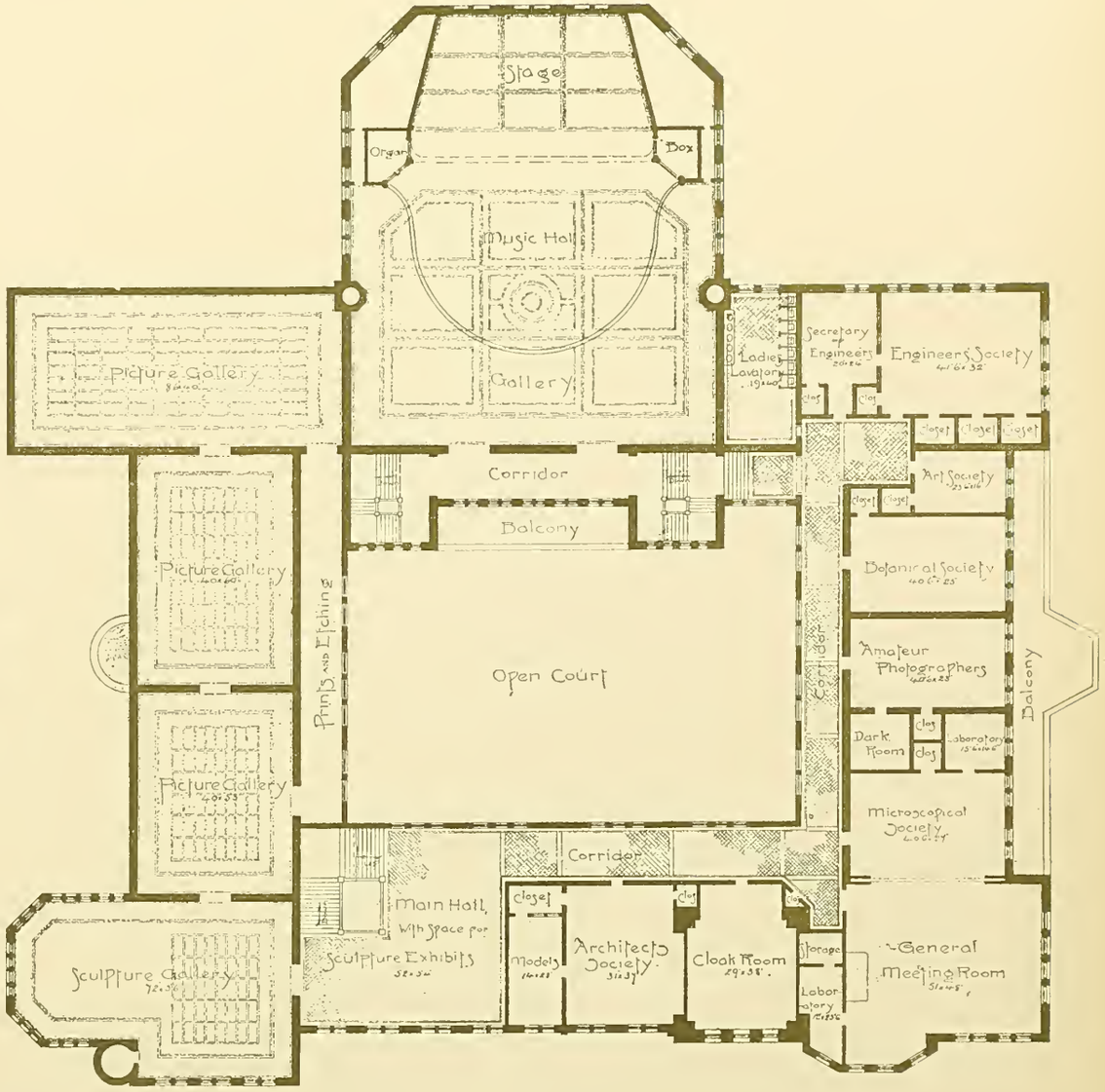


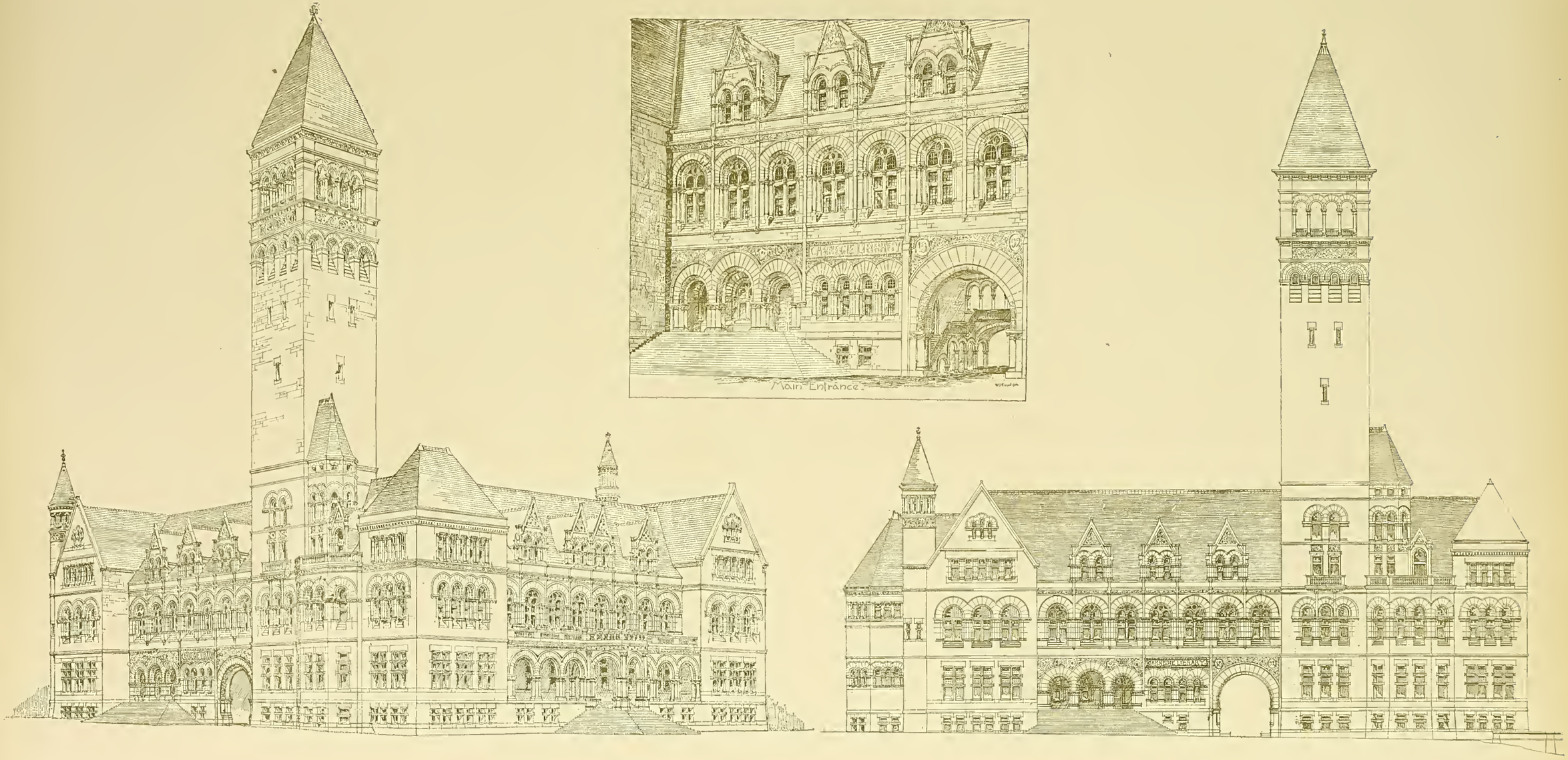


APPROVED DESIGN FOR OHIO STATE BUILDING, WORLD'S COLUMBIAN EXPOSITION, CHICAGO.

JAMES W. MCLAUGHLIN, ARCHITECT, CINCINNATI.
J. W. YOST, G. W. RAPP AND F. A. COBURN, ASSOCIATE ARCHITECTS.


Boiler House
Stage
Organ
Box
Music Hall
Gallery
Stack Room
Museum
Museum
Museum
Museum
Museum
Librarian
Card Room
Reading Room
Open Court
Main Staircase
Reference Library and Reading Room
Trustees Room
Balcony


Stage
Organ
Box
Music Hall
Gallery
Picture Gallery
Picture Gallery
Picture Gallery
Sculpture Gallery
Prints and Etching
Corridor
Balcony
Open Court
Secretary Engineers
Engineers Society
Ladies Lavatory
Art Society
Botanical Society
Amateur Photographers
Dark Room
Laboratory
Microscopical Society
Main Hall with Space for Sculpture Exhibits
Models
Architects Society
Cloak Room
Storage
Laboratory
General Meeting Room



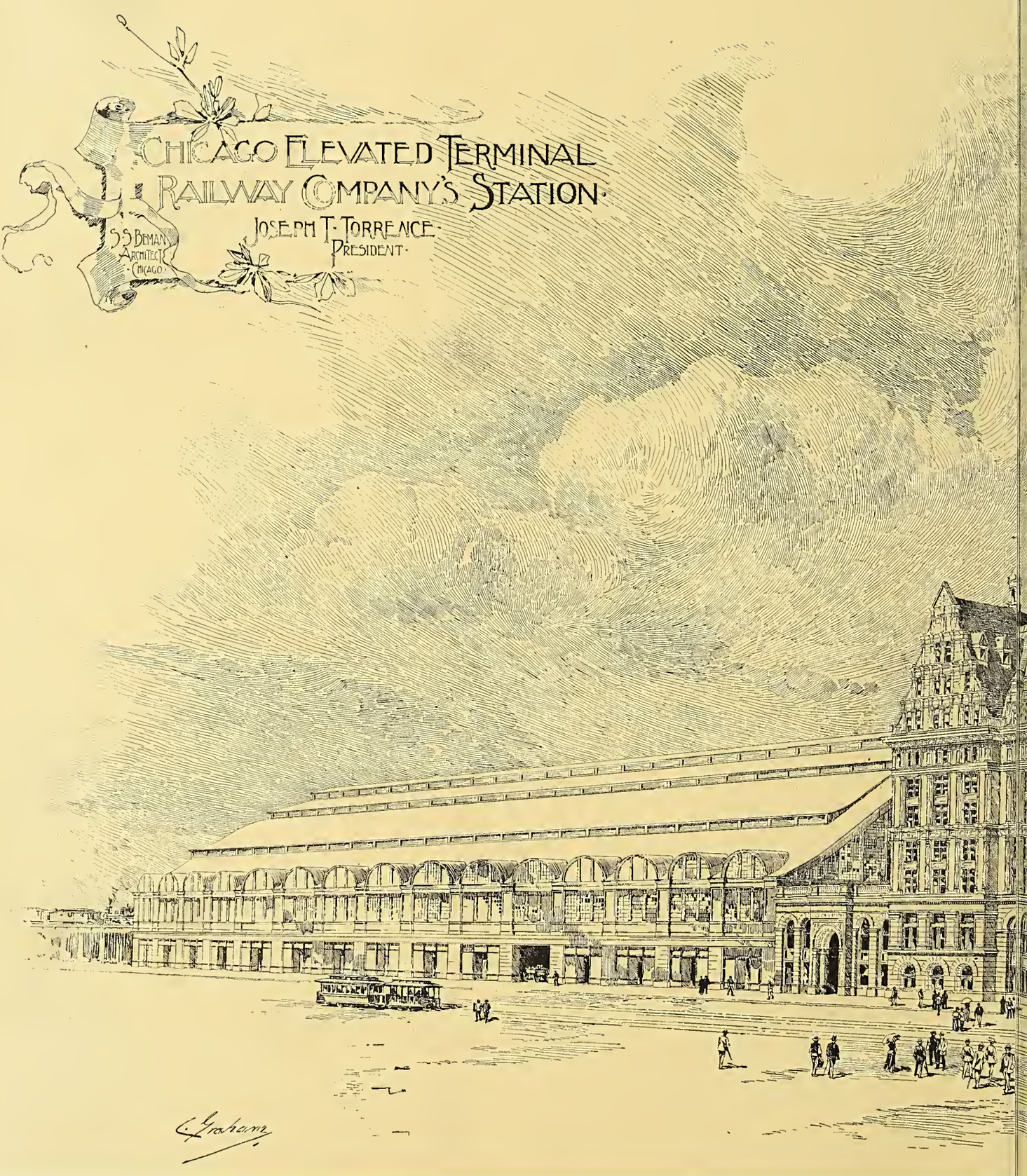
PREMIATED DESIGN, CARNEGIE LIBRARY (PITTSBURGH) COMPETITION.

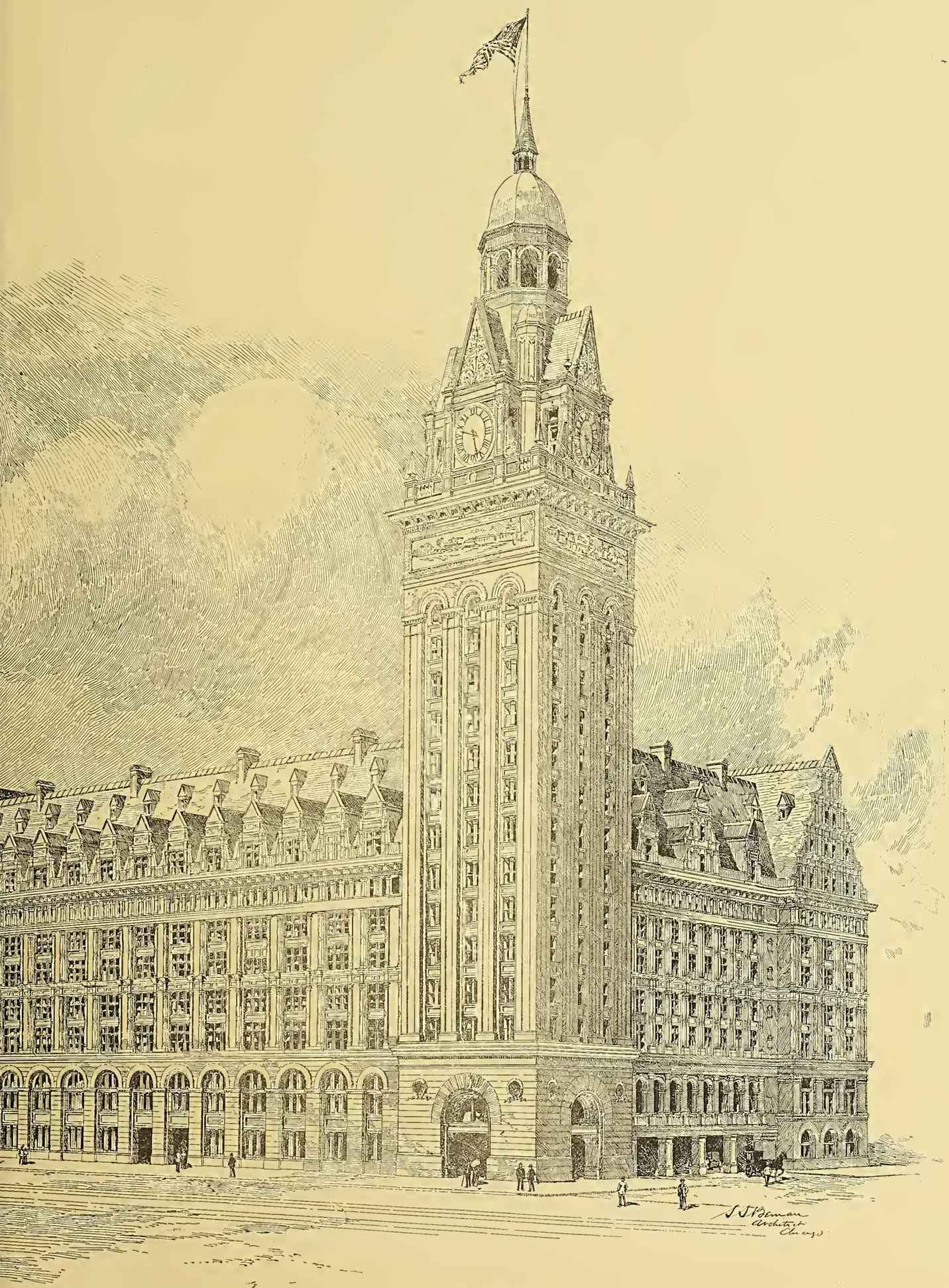
Submitted by W. S. Fraser, Architect, Pittsburgh, Pa.

CHICAGO ELEVATED TERMINAL RAILWAY COMPANY'S STATION.

JOSEPH T. TORRENCE.
PRESIDENT.

S. S. BEMAN,
ARCHITECT
CHICAGO.




J. J. Beman
Architect
Chicago

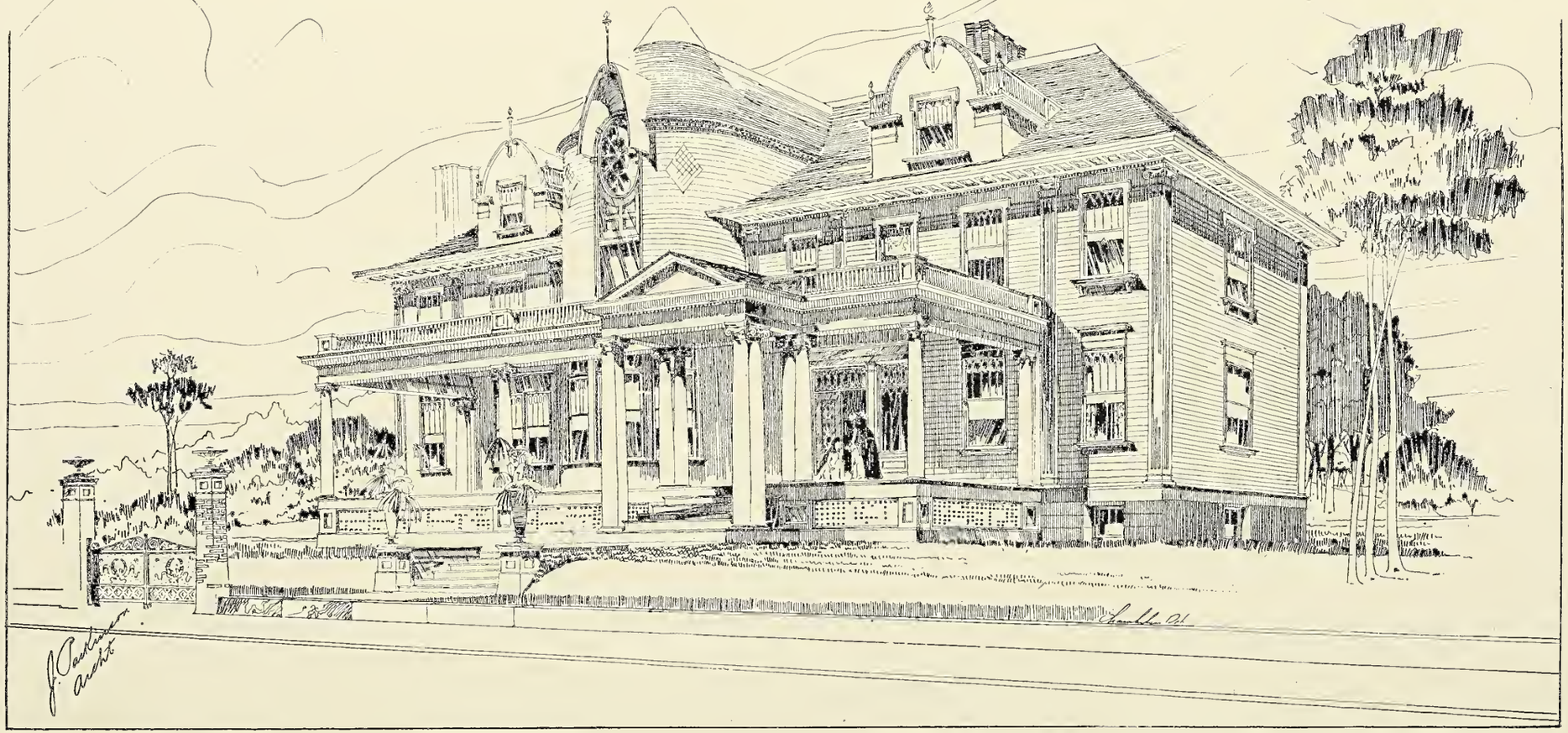
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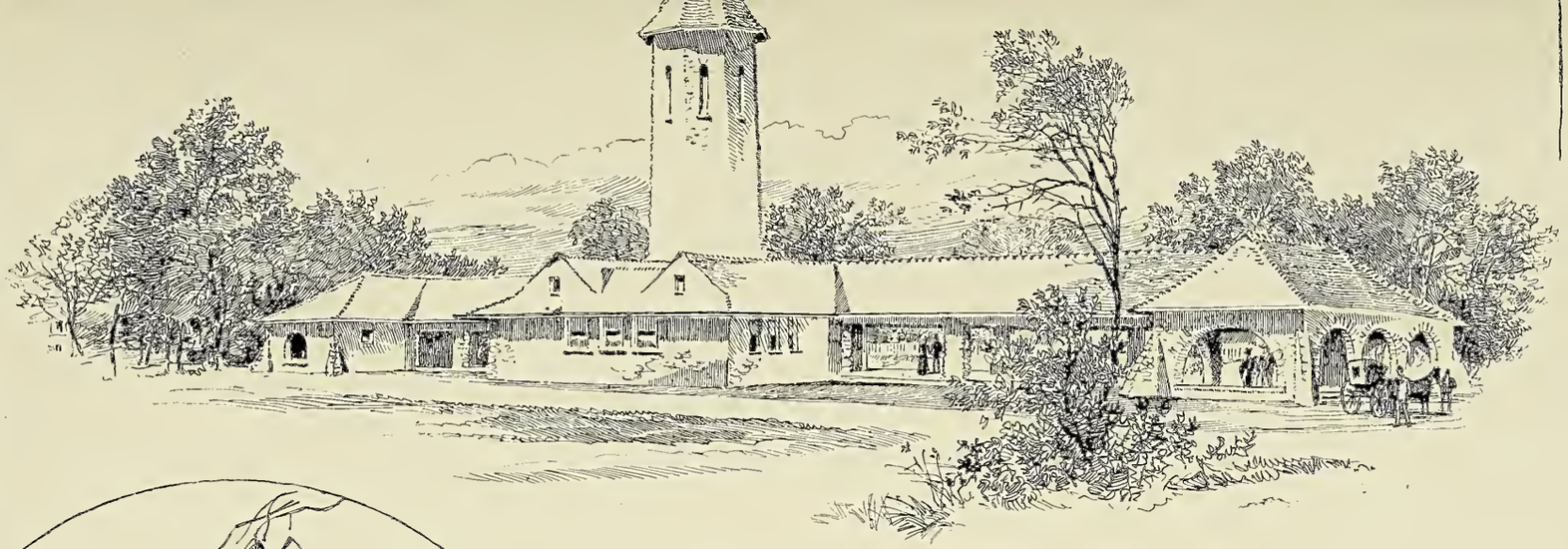
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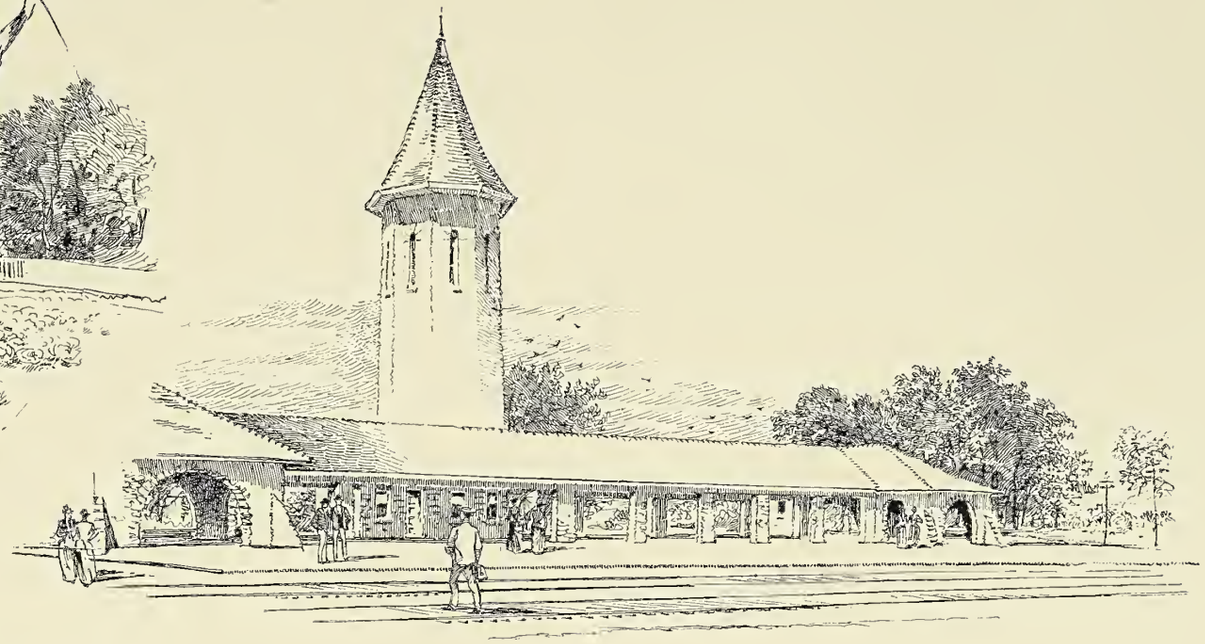


Study for Residence of Mr. Daniel Jones ..... Seattle Wash. ....









A picturesque suburban R.R. Station.

Sheridan Park. ~ on the C.M. & St P. R.R.

Chicago. Ill.

Sketches by E. Eldon Deane.

Holabird & Roche. Architects

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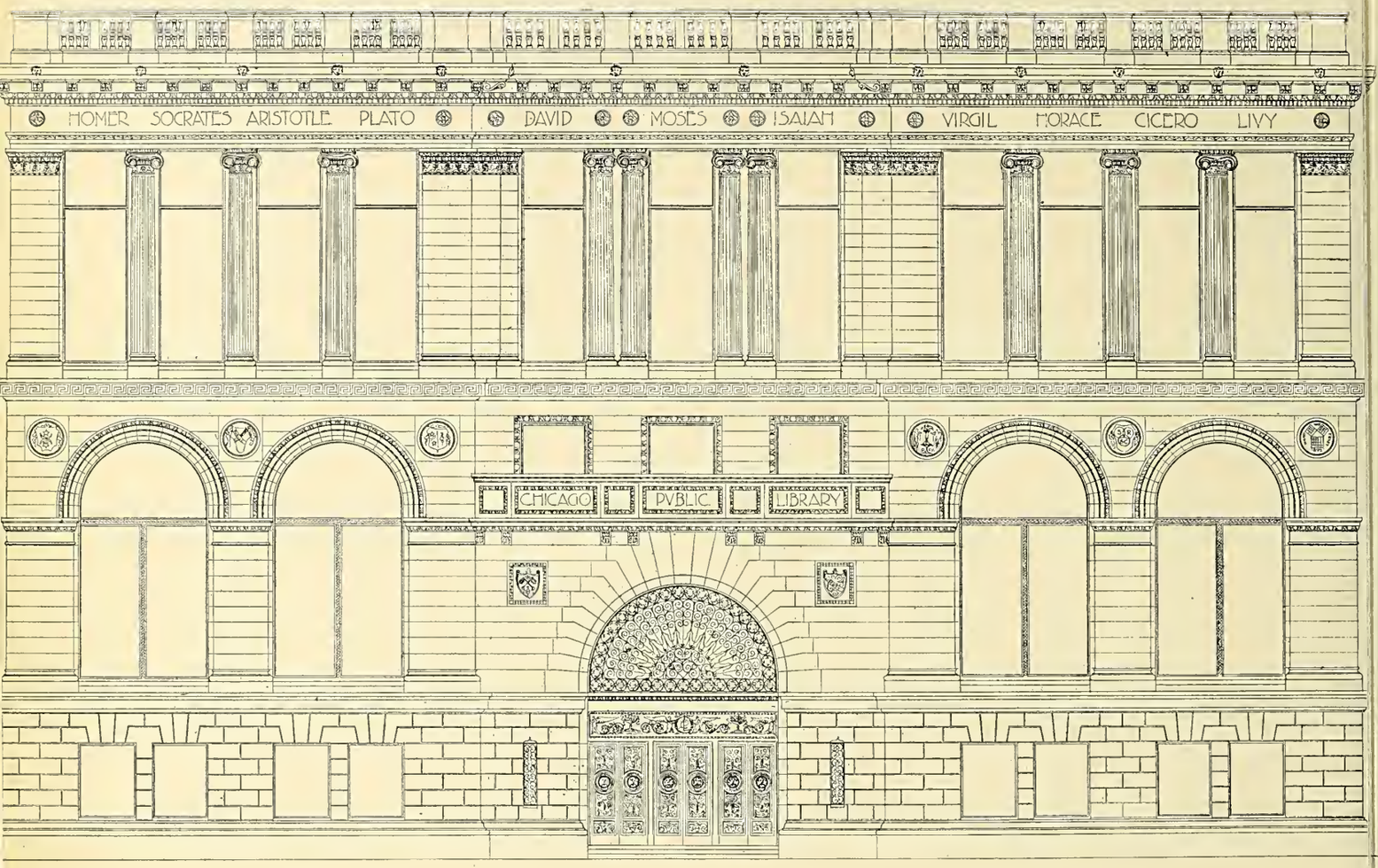
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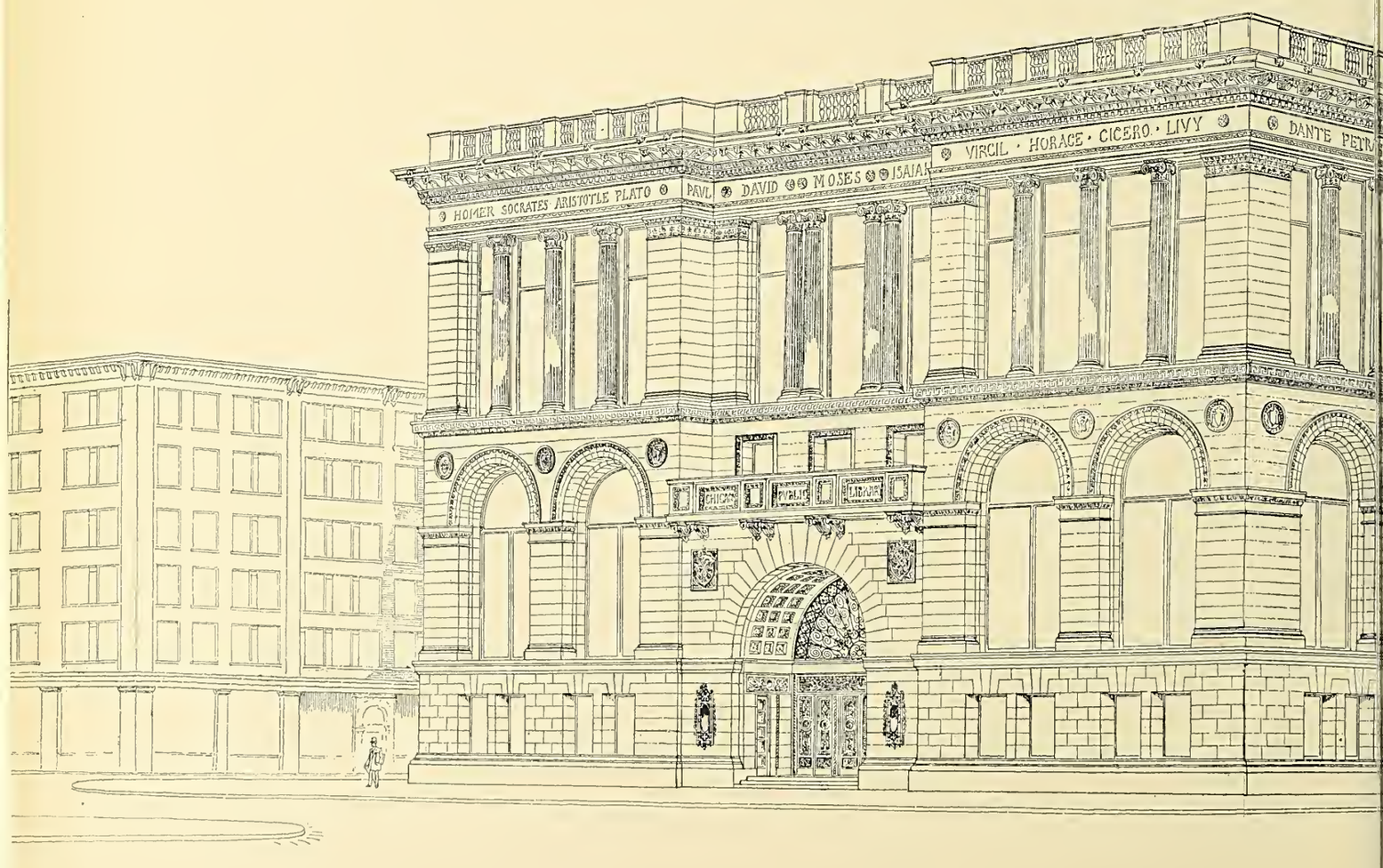
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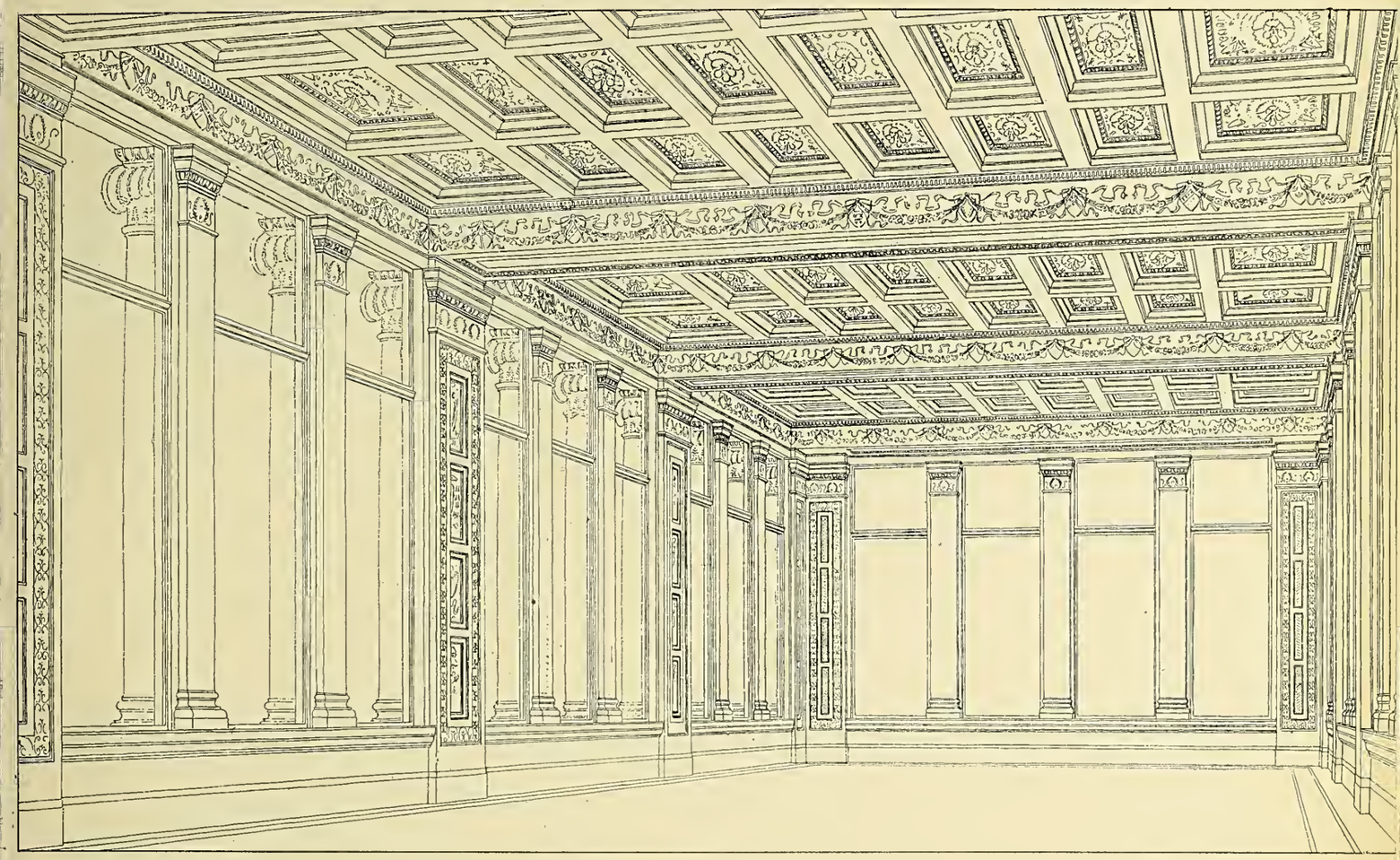
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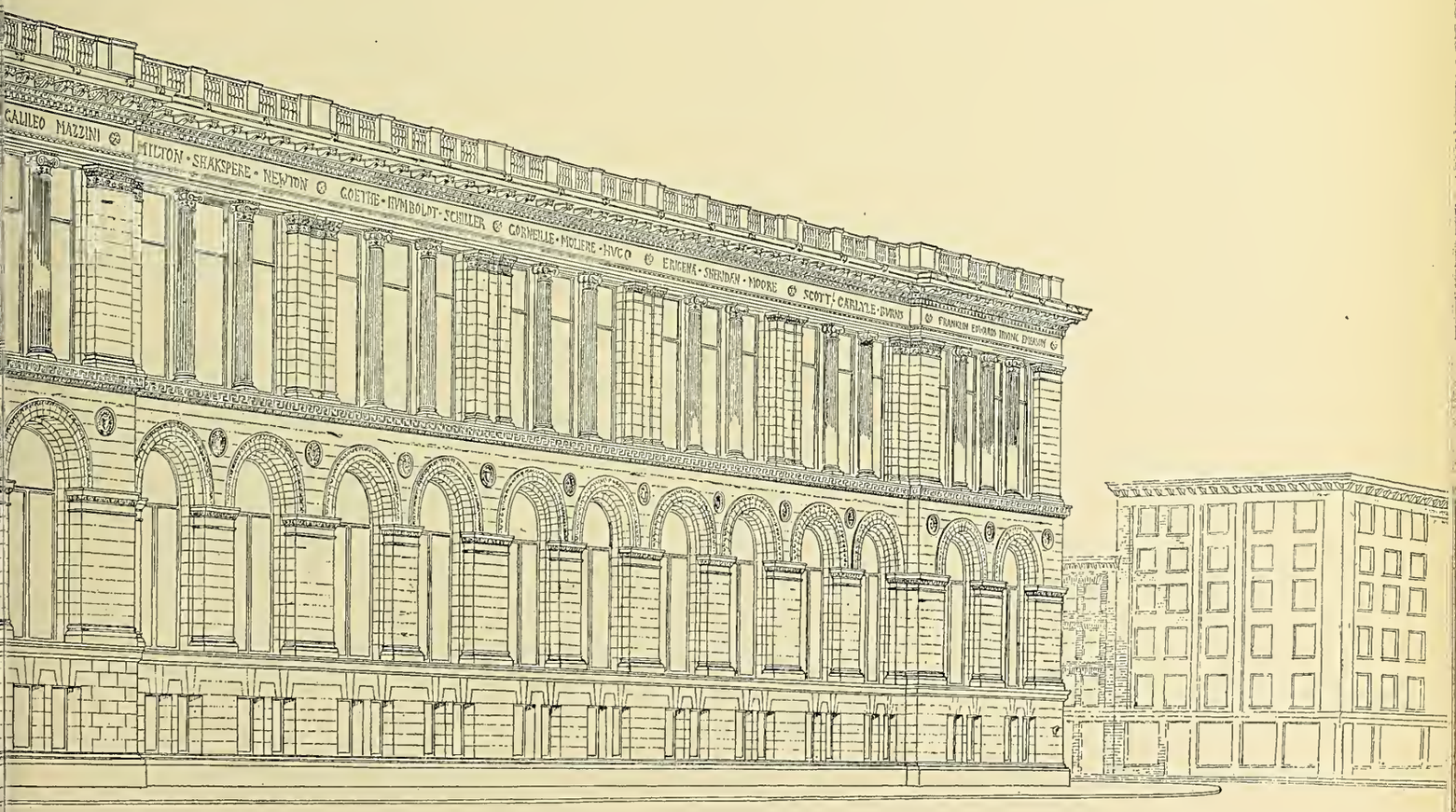




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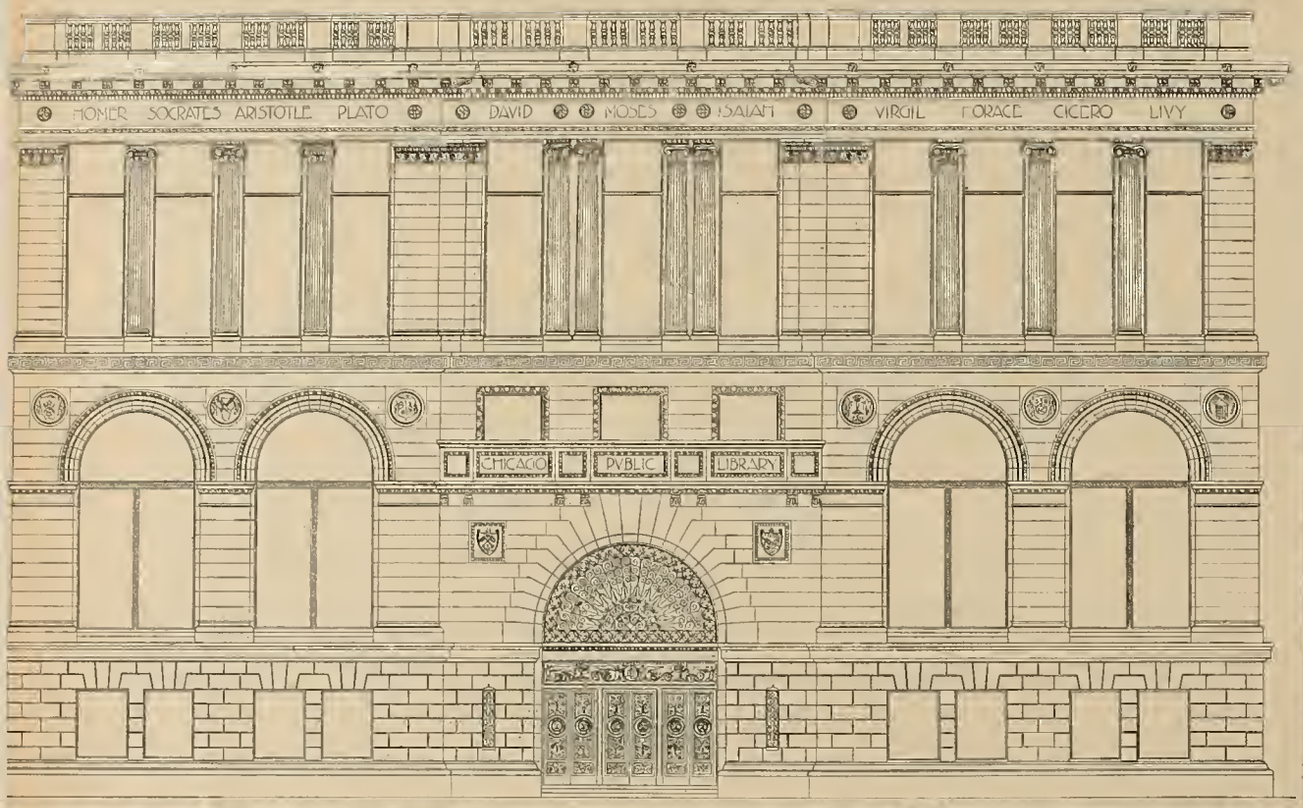
SHEPLEY, RUTAN &

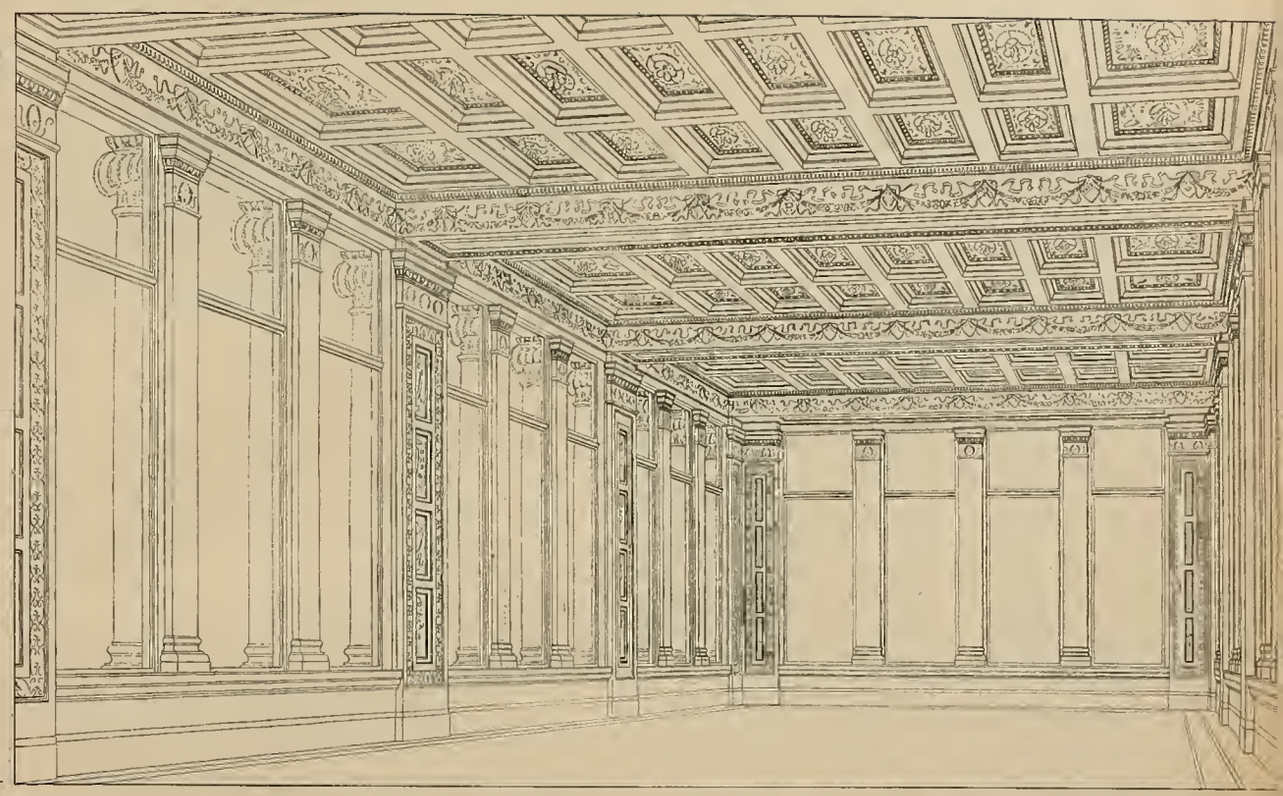


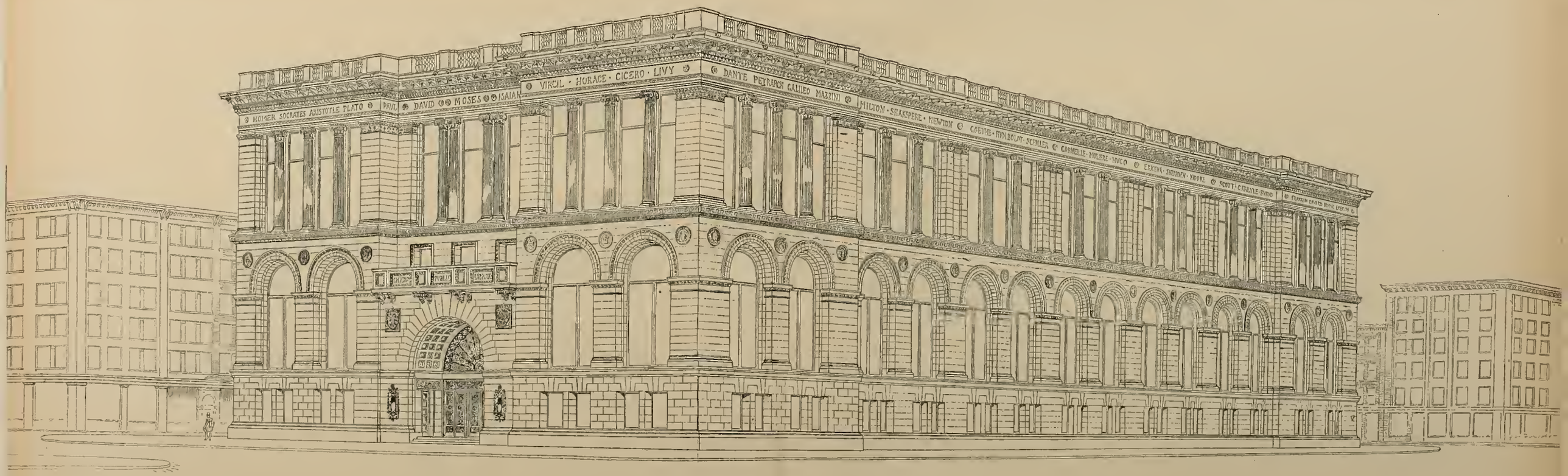


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OLIDGE, ARCHITECTS.







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THE INLAND ARCHITECT AND NEWS RECORD

Vol. XIX. APRIL, 1892. No. 3



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ARCHITECTURE,

CONSTRUCTION, DECORATION AND FURNISHING

IN THE WEST.

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C. J. CLARK, Louisville, Ky.	GEORGE C. MASON, JR., Philadelphia.
LEVI F. SCHOFIELD, Cleveland, Ohio.	E. F. FASSETT, Portland, Me.
M. J. DIMMOCK, Richmond, Va,	A. W. LONGFELLOW, Boston, Mass.

For one year.

CHARLES A. CUMMINGS, Boston, Mass.	HENRY VAN BRUNT, Kansas City, Mo.
JAMES G. CUTLER, Rochester, N. Y.	CHARLES E. ILLSLEY, St. Louis, Mo.
JAMES H. WINDRIM, Philadelphia, Pa.	H. J. HARDENBURGH, New York, N. Y.
WILLIAM LE BARON JENNEY, Chicago, Ill.	CASS GILBERT, St. Paul, Minn.

STANDING COMMITTEES FOR 1892.

Committee on Foreign Correspondence: Richard M. Hunt, chairman, New York, N. Y.; William Le Baron Jenney, Chicago, Ill.; Dankmar Adler, Chicago, Ill.; Charles F. McKim, New York, N. Y.; Henry Van Brunt, Kansas City, Mo.

Committee on Education: Professor Russell Sturges, chairman, New York, N. Y.; Professor William R. Ware, New York, N. Y.; Professor N. Clifford Ricker, Champaign, Ill.; T. M. Clark, Boston, Mass.; Professor C. Francis Osborne, Ithaca, N. Y.

Committee on Code of Professional Ethics: Louis H. Sullivan, chairman, Chicago, Ill.; E. H. Kendall, New York, N. Y.; W. W. Carlin, Buffalo, N. Y.; Henry Van Brunt, Kansas City, Mo.; R. W. Gibson, New York, N. Y.

Committee on Clerk of Works: R. W. Gibson, chairman, New York, N. Y.; D. Adler, Chicago, Ill.; W. G. Preston, Boston, Mass.; J. W. McLaughlin Cincinnati, Ohio; J. G. Cutler, Rochester, N. Y.

Committee on Uniform Contract: Samuel A. Treat, chairman, Chicago, Ill.; D. Adler, Chicago, Ill.; Alfred Stone, Providence, R. I.

Committee upon Conservation of Public Buildings: The presidents of Chapters.

Committee on Competition Code: (To be appointed by the Board of Directors.)

The Design for Our New Title Page.

The radical change in title page made in the last issue of this journal does not call for special remark, perhaps, but as considerable comment has been made upon it, and inquiry regarding the process by which the design was executed, we print the following description from the *Elite News*, which published the design as an art illustration:

THE INLAND ARCHITECT, a Chicago journal devoted to architecture and the allied arts, appears this month in a new dress. The successes of this publication during the years of its existence have served to place it, now in its tenth year, in the foremost rank of domestic or foreign architectural periodicals. Added features of interest in the matter of increased text and plates mark this new volume, but that which attracts especially in this number is the cover, which we reproduce in this issue of the *Elite News*. It is not always possible to translate symbolic art into words, and in placing one's own interpretation on a work one is not always safe in assuming that he has touched the chord that thrilled the designer. However, the designer of this cover has worked out his problem in a manner so direct and simple that there is little need of wordy interpretation. The idea seems to have been to represent a portal, treated in the elegance of the Italian Renaissance, beyond which portal are stored the treasures of the publication. The portal is flanked on the one hand by a sculptured figure of "Design" just at the point of raising the pen to formulate and record the inspiring thought; and on the other hand by "Construction" in the act of applying and embodying the recorded idea. The sculptor has suggested very happily the ideas of construction and design, not only in the pose of the figures, but in the treatment of the draperies, giving to one the airy, flowing raiment suggestive of the realms of thought, and to the other the sturdier garment of a work-a-day world. The lines of the figures compare beautifully with the architectural background, which is itself composed in a commendable spirit of restraint, considering that the designer was left free, by the publishers, to work out his own idea. Taking it all in all, this cover may be considered a good example of the beauty which lies in the simple, well-directed use of elegant architectural and chaste sculptural forms. The design is from the pencil of Mr. Irving K. Pond, of the architectural firm of Pond & Pond, and the modeling was done in clay under his supervision, by the well known sculptor, Mr. Lorado Taft.

Death of Edward Burling, Architect.

With the changes that come so rapid and are in their results so important to the upbuilding of Chicago the retirement or death of those who laid its foundations and were most active in its material growth is one of the inevitable features. In January, the first architect to give his services to this work, Mr. John M. Van Osdel, died, and in March, the second architect, younger by a few years and who commenced practice but a few years later than he, left the scene of his labors. The name of Edward Burling is associated with many of the first as well as the latest buildings of the second city in the United States. He came to the city when its inhabitants numbered but a few thousand, and in 1861 had a large practice. Mr. Dankmar Adler, whose acquaintance with Mr. Burling began in 1861 when he first came to Chicago, and who became his business associate in 1871 continuing for eight years, gives a retrospective glance upon so much of his life as came under his notice. When Mr. Adler came to Chicago, Mr. Burling was recognized as one of the leading men of the city, and he was a man of mark not merely as an architect but as a citizen and as one ready to identify himself with every advanced movement. He had been identified with the marvelous growth of Chicago up to the time of the great fire; had been the architect of some of the best buildings of that period, such as the Marine bank, the Portland block, the Masonic temple, the Chamber of Commerce, the Dickey building, the First National bank, the Tribune building, St. James church, Methodist church block, Garrett building and many others of almost equal importance. Up to that time, he had been associated in business with Mr. Robert Schmidt, Mr. Frederick Baumann and Mr. Edward Baumann, but the impress of his strong personality was found upon all of the work emanating from his office. He

took a prominent part in the reconstruction of Chicago after the great fire, and was engaged in the reconstruction of all of the buildings before mentioned except only the Chamber of Commerce, and in the original construction of many buildings covering miles of street frontage. During this time he was for two years County Commissioner, and was also for three years Superintendent of Construction of the United States government building. Soon after the termination of Mr. Adler's connection with him he associated himself with Mr. F. M. Whitehouse, and in conjunction with him built the present First National bank building, the residences of S. M. Nickerson, C. T. Yerkes, H. N. Higinbotham and many others. Mr. Burling was a man of sterling honesty and very clear vision as to what was right and wrong. His familiarity with the best literature of the English language and his sympathy with the progress of culture and humanity were known only to his more intimate friends. As a constructor, he had no superior among the architects of his day, and up to a month before his death his activity continued. His age was not such as to make his retirement necessary, but a severe fall two years ago, caused by his forgetting that his youthful activity was leaving him, was probably the real cause of his last illness. Architects and contractors who had known him through life followed him to his last resting place at Rose Hill; and as in life they respected, in death they united in testifying to his integrity and justice and the many other admirable qualities which had made him a just architect and an honored citizen.

A Natural Result of Loose Building Practices.

With the immense amount of building done in Chicago it would seem that the building laws and their enforcement would be one of the most prominent features in the local economy, especially as few buildings have collapsed in the last ten years. This, in the light of recent events, seems to be more from good fortune than from any definite plan of protection. A stormy afternoon lifted a few roofs and blew down a few incomplete frame houses in the suburbs, and would have caused but passing remark had not a seven-story brick structure in a thickly populated district collapsed and killed a number of people. The investigation only brought before the public what architects and contractors have known and sought to remedy for the last decade. The permit was issued for a three-story building. A loosely directed building department did not inspect in a practical manner; an owner that only cared to build cheap got a cheap contractor and a cheap "architect" (he is said to be employed by an architectural iron concern in some capacity), and a little wind and a little rain blew the structure down before it was completed. Though the jury indicted the building commissioner, the inspectors, owners, "architect" and contractor, and the grand jury may try them, it will be found that no one is responsible. A building commissioner is appointed because he is a politician; his department is a political one and therefore largely influenced by politics; the "dummy architect" practiced as such because no law can be passed in the state regulating the profession of architecture, because such granger architects would lose their occupation, and the politician would lose votes if he attempted to deny him the privilege of imperiling people's lives. No, there is nothing singular in the Pearce street disaster. The singularity is that more of such do not happen, and that the public will blame the owner, building inspector and "architect" when they can expect nothing else when everyone concerned occupies his position from some other cause than his fitness for the office. Unless there is a thorough revision of the building ordinances, drawn up by architects and not by politicians; a building department instituted with a trained architect for its head, and capable men appointed for their ability and integrity for inspectors under him; a special inspection of the plans for all important structures by a committee of architects especially engaged for the purpose; and last, the passage of a bill in the state legislature providing for the examination and licensing of architects before they are permitted to practice, greater disasters than the last will be a natural result of the present prevailing condition of building practices in Chicago.

Sculpture at the Columbian Exposition.

The sculpture upon the World's Fair buildings will probably excite as much interest and criticism from foreign architects and artists as any other feature of the Exposition designs. It is probable that the only sculpture that will be executed in bronze will be the large fountain in front of the Administration building. It is now being cast in Paris and is illustrated in this number. The artist, who is now in Paris directing the work, is Frederick MacMonnies, of Boston, and a pupil of St. Gaudens. The sculpture of the Agricultural and the Fine Arts buildings will be by Philip Martiny, of New York; the Administration and the Manufactures and Liberal Arts buildings, by Carl Bitter, of New York; the Transportation building, by John Boyle, of Chicago; the Horticultural building, by Lorado Taft, of Chicago; the Machinery building, by Robert Kraus, of Boston; the Electricity building, by Carl Rohl Smith, of Louisville; and the modeling on the Fisheries building, by Joseph Richter, of Chicago. The statue of "Columbia," which will overlook the lake at the water entrance to the Fair, is by Daniel Chester French, of Chicago. Of these sculptors the majority are American, that is, either born or educated in this country. Carl Bitter is the exception, having come to the United States two years ago. The work performed by these sculptors is excellent, and will advance the cause of art immeasurably. In fact the Columbian Exposition will probably give as great an impetus in the direction of pure architecture and the allied arts as it will to commerce.

Remarkable Bidding for Electric Lighting.

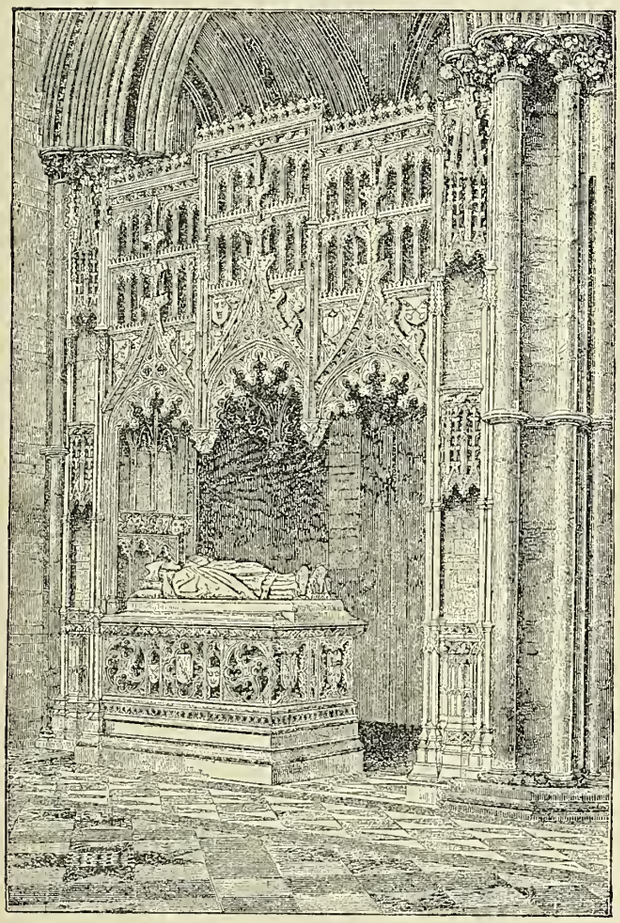
Recent developments in the letting of contracts for electric lighting for the World's Fair show how strong a combination existed between four of the largest companies. When bids were called for for the incandescent lighting the combine bid $18.50 per light, and a company not in the electric lighting business but backed by a number of smaller concerns placed a bid for $6.60. This was met by the "combine" by a second bid for $5.95 per light or a total of about $553,000, and the contract was awarded to them for 93,044 lights at a saving of some $1,200,000 on the first proposition. This includes the entire incandescent plant and its maintenance. The Exposition management is to be congratulated upon the outcome of this important controversy and it is hoped that the result will deter other companies from seeking to obtain an exorbitant profit upon work done in connection with so thoroughly a national and beneficial enterprise as the Columbian Exposition of 1893.

Architecture and the Allied Arts.

BY BARR FERREE.

PART V.—*Conclusion.*

IN treating the subject of architecture and the allied arts it becomes apparent that two forms, painting and sculpture, have received the most attention from the artists of all time. Other forms of art, as metal work, enamel, mosaic, painted glass, and similar minor forms were developed chiefly in some one style, and even though they were employed in many others, they sunk into subordinate



TOMB OF BISHOP REDMAN IN ELY CATHEDRAL.

positions. Painting and sculpture, however, are present in nearly every form of architecture, and generally in a well-developed state. The following table has been prepared to present a summary of the subject, and to show at a glance the relative uses made of various forms by the leading styles. The one art which was mostly employed in each style of architecture is printed in a bold-face type.

THE ALLIED ARTS IN ARCHITECTURE.

Egypt	**Painted Sculpture.** Painting. Sculpture.	Mahommedan	Tiles. **Carved and Painted Geometrical Decorations** Painted Ornament.
Chaldæa and Assyria	Painting. Sculpture. **Metals.** Enamel.		
Greece	Painting. **Sculpture.** Metals.	Mediæval	Painting. Sculpture. Mosaic. **Painted Glass.** Carved Wood. Metals.
Rome	Painting. Sculpture. **Inlaid Marble.** Mosaic. Metals.		
Byzantine	Painting. *Sculpture. **Mosaic.** Metals.	Renaissance	**Painting.** Sculpture. †Mosaic. Carved Wood. Metals. Glazed Pottery.

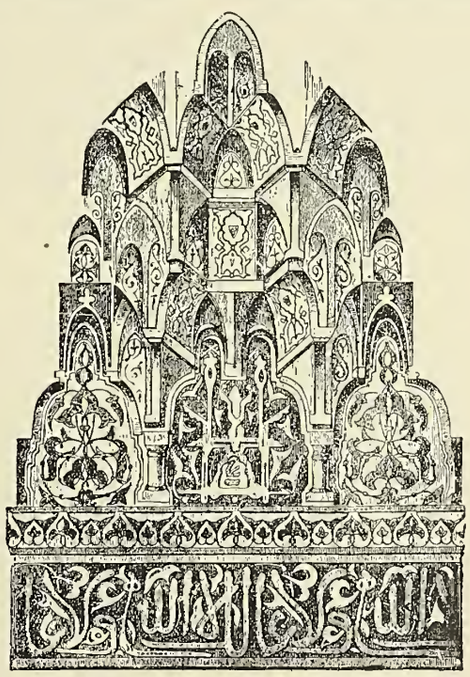
It should be noted, however, that as mankind advanced they made use of a great variety of arts, so that in the Gothic, the latest of all the original forms, nearly every phase that had been employed in previous styles here finds a definite and characteristic use. The manner of using different arts varies with the progress of taste. There is a gradual evolution of sculpture from the low reliefs of the Egyptians to the full round of the Greek, Roman and Gothic. Painting is chiefly employed to depict scenes, even in such widely separated styles as the Egyptian and Gothic. It is, however, often used to color

*Use very slight. †Not characteristic.

ornament and in the representation of ornamental designs. The Greeks, for example, made large use of painted ornament, which in other styles, the Corinthian, for example, is displaced by sculpture. Metal, while used in a splendidly barbaric manner by the Assyrians, becomes a most useful and well subordinated ally in other styles.

In making use of the allied arts as adjuncts to architecture no especial significance seems to have been attached to subject matter. The Egyptians covered the walls of their palaces and temples indifferently with scenes from sacred and royal life, and much the same may be said of their tombs, though here incidents from the book of the dead, and many episodes from the daily life of the people are to be found. The methods employed in the decoration are the same, whatever the subject, and the appearance of a wall decorated with sacred scenes and one covered with events in the history of a great Pharaoh exhibit no difference to the casual eye. It is the same with the Greeks, and while the gods in the pediments of the temples had a higher relief, or rather were full statues in the round, while the figures in the frieze, being chiefly of human beings, had a low relief, the difference is one of position and has no connection with the subject matter. It is the same in the Gothic, and though in the churches statues of saints and divine personages are the rule, viewed from an architectural standpoint they are simply statues. Their real meaning has no special significance. The works of Raphael or of Michael Angelo are so much fresco and exercise the same function of wall coverings whether they relate to sacred or profane history. There is, at various times, a greater development of one form of representation than another, but as statues, paintings or enamel they are the same, so far as occupying certain positions in the building is concerned, and so far as they are decorative adjuncts.

One or two minor arts call for consideration. Inscriptions occupy a position of considerable importance in early forms of art. It was necessary to give an absolute name to the representation of figures or scenes in order that there be no misunderstanding as to what was represented. Accordingly these elements disappear with the progress of art. The Egyptian hieroglyphics form a very considerable part of their sculptures, and while they may never have been employed as a decoration the uses that they were frequently put to made them such. The Chaldæan and early Assyrian reliefs had an inscription carried straight across the figure, a peculiarity that was fortunately confined to this one form of art. The method was, therefore, dispensed with in the later work. The Greeks used brief inscriptions, generally not more than a word or two, to indicate the individual represented, a



MOORISH INSCRIPTION (PENDENTIVE, FROM THE COURT OF THE LION, ALHAMBRA).

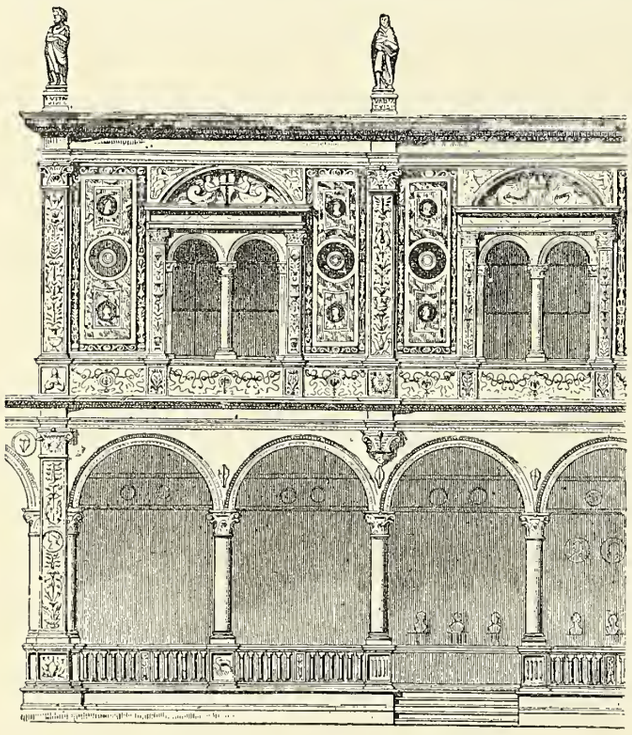
system followed by the Romans, Byzantines and early Gothic artists. In all these styles the inscription is extremely limited and is frequently omitted altogether. With the full development of paintings the usage was neglected, for then art and intelligence had advanced sufficiently to enable the work to be thoroughly understood without any disfiguring marks. The most beautiful and successful application of inscriptions to decorative purposes is furnished by the Mohammedans, who

devised what might almost be termed a special style of decoration from their writing.

Hangings and tapestry have always held an important place in buildings of all kinds, both sacred and profane, and in all times until our own. In early forms of art, and in fact until quite recently, they formed the chief method of covering the walls. Practically their effect was similar to that produced by wall paintings, but even till near the end of the Renaissance no building was completely furnished until it had been hung with tapestry. The treasures of the great mediæval cathedrals include many sets of hangings, which were brought out on gala occasions, and gave an additional splendor to the magnificence of the edifice. It cannot, however, be said that this form of art exercised any special influence on architecture.

One special form of decoration was practised in Italy in the period of the Renaissance which deserves mention, namely, *sgraffito*. This mode of ornamentation, which is very simple, and in the Italian climate both permanent and effective, consists in laying on a coating of black plaster, over which is spread a thin coat of white. The design is then engraved on this, coming out in black.

It will be noticed that, in tracing the influence of the allied arts upon architecture, more attention has been given to religious art than to secular. The relation of religion to architecture is too extensive a theme to be opened here, but it is a highly significant fact that the



SGRAFFITO DECORATION FROM THE LOGGIA DEL CONSIGLIO, VERONA.

highest development of ornament of any kind is to be found in conjunction with sacred edifices. The temple and the church were the structures on which the people lavished the whole of their resources, and though in time secular buildings borrowed from ecclesiastical ones, the latter remained the finest exponents of all decorative systems. Nor is this the only reason, for sacred buildings have survived in a more complete state than secular ones, not only because they were frequently built with greater care and with better materials, but because the traditions with which they were surrounded inspired an awe which was often a means of protection from desecration. These facts account for the almost exclusive use that has been made of religious architecture as a source of illustration in the present series.

It must not, however, be inferred that secular buildings were in any way deficient in ornament, or that the allied arts entered into less intimate relationship with architecture in them than in those devoted to worship. On the contrary, in every style in which a system of decoration was consistently carried out, the secular buildings were not less elaborately ornamented than the ecclesiastical ones. The palaces of the monarchs were loaded with the riches of the land, as were the temples. Sometimes, in fact, they exceeded them, as in the Roman empire and the period of the Renaissance. Different causes, however, produced similar results in these two instances. In Rome religion sunk into a civil function, and was kept up more in regard to popular feelings than from any religious feeling. In the Renaissance Europe found itself abundantly provided with churches and cathedrals, and the artistic energy which had previously been spent on the church was now devoted to the palace.

The effect of this change upon ornamentation was very great; artists were no longer confined to sacred subjects nor limited by the solemnity befitting a church. Secular art developed with an astonishing rapidity, ancient forms and methods were seized upon with avidity and an entirely new system devised which had no connection with the old ecclesiastical forms. The Renaissance was, therefore, as the period of the Roman empire, a time of the decoration of the palace as distinguished from the decoration of the church. The difference between the new and the old style was one of forms rather than of methods. The walls were covered with paintings or hung with tapestry just as the church was, though now the secular forms and adaptation of ideas to secular life gave a new and distinct appearance to the ornamentation. Into the history of this evolution it is not necessary to enter, but it should not be forgotten that in all periods and in all styles the union of all the arts was close and intimate without regard to the uses to which the building was to be put.

The decoration of the house was more internal than external. In earlier times, even as far back as the period of Greece and Rome, the householder prided himself more upon the internal arrangements of his house than upon its external aspect. He aimed to have his art treasures where he could enjoy them in the society of his friends rather than to display them for the benefit of an unappreciative public. Gorgeous exteriors were therefore reserved for the palaces of the monarch or great nobles who wished to impress the populace with their importance and wealth. Later, in the middle ages, the unsettled state of society prevented the use of any considerable ornament on the façades of the dwelling, and in fact the houses of the great men were nothing less than fortresses that were constantly subject to attack from enemies who had small regard for any object of beauty. When this state of affairs had improved, some attempts were made at external decoration; but progress was slow, and it was usually confined to a small part of the façade, as, for example, the doorway or entrance. Mediæval houses appealed more to the eye by their beauty of dimension and solidity of structure rather than by an elaboration of ornament. In the towns there was a greater freedom of display, for here was less danger, but it was not until well into the Renaissance that it became usual to elaborately decorate the dwellings of private citizens.

Recent Fireproof Building in Chicago.

BY P. B. WIGHT, ARCHITECT.

Part III.

IRON AND STEEL FRAMED BUILDINGS — VERTICAL SUPPORTS.

It is not proposed, in the limits of these papers, to attempt any detailed description of the several methods that have been used in the construction of steel or iron frame buildings. In the materials used for vertical supports there has been considerable diversity. The principal kinds that have been used comprise: First, cast-iron columns, generally of square or rectangular section; second, rolled-steel columns of the Z-bar pattern, with their various combinations and the introduction of stiffening plates; third, compound steel columns of channel steel with side places or lattice connections; fourth, steel-riveted columns of the Phœnix or Carnegie patterns. The latest column to be introduced is the Larimer column or Jones & Laughlin pattern, composed of two I-beams bent through their whole length at the central line of the webs, and held together with one row of rivets, making a cruciform column having "flanged flanges." The latter are made with rolled-steel end connections, which was not formerly the case with the Phœnix columns. But I understand that these have recently received this improvement.

Cast-iron columns are greatly preferred by many architects. It is claimed that they have an advantage in cheapness, notwithstanding the greater weight of material required to carry a given load. There is no objection to the greater exterior size of cast-iron columns built in an exterior wall, as there is always plenty of room for them.

The Z-bar columns are preferred by many architects and are the favorite with engineer constructors, who are now generally employed by architects. When first introduced for the struts in bridge work, one of the greater advantages claimed for them was that all surfaces of the materials of the columns or struts were exterior surfaces and could readily be cleaned and repainted. This advantage is of no consequence in building work, where all parts of the columns are permanently inclosed in another material and inaccessible whenever thorough fireproofing is attempted. It was also claimed that in building-work, all connections to horizontal members could be made with

more facility and at the minimum of expense. But this has not always been the case in practice. As the girders and other horizontal members do not always attach to the Z-bar columns at their centers, frequently complicated bracketing is required, necessitating the use of many pieces of angle steel and numerous rivets. Besides, where connections are made between successive stories of Z-bar columns, the end plates are cumbrous and difficult to conceal or effectively fireproof without unduly increasing the size of the resultant pillars. No practicable method has yet been devised for making these columns fireproof except by building around them walls of two-inch hollow or porous tiles with rounded corners; and in all buildings yet erected, when used for independent interior supports, they occupy more space when completed and decorated than any other kind of constructive columns. This objection does not hold, however, with regard to columns in exterior walls, where the problem continues to be one of engineering and economy alone. The Z-bar column was originally introduced in building-work, because the material of which it is made was then much cheaper than any other form of constructive steel. But the recent collapse of the constructive steel combination must now result in reducing channel steel to the same price.

The combination of channels with plates or lattice work will at equal cost of material make more economic steel supports than could formerly be had by the use of Z-bars. The bulk of the metal being at the outer line of the columns, less material is used to give equal strength. These are, moreover, better adapted for all the necessary horizontal connections, and are likely to come into extensive use.

The high price of the Phœnix column, owing to its being a patented article, especially after the withdrawal from the market of octagonal flanged Carnegie columns, of similar construction, deterred many from using it who would otherwise have found it best suited to their purposes. But the expiration of all patents has now brought it to a level with all other similar commodities. It is therefore liable to come again into extensive use.

The Larimer column is well adapted for use as an exterior and interior support. It can be fireproofed without much waste of space. It is used throughout the interior of the new Newberry library to carry the girders.

Present experience indicates that the channel steel column is best for exterior walls, and the Phœnix pattern for independent interior



supports. The largest fireproof columns ever built are of this pattern and are used in the Chicago Board of Trade.

In the earliest buildings in which iron and steel were used in exterior walls, these materials were employed to support the outer ends of girders on two sides, and to carry girders independent of the walls on the two opposite sides of a rectangular building. The materials of the exterior walls were entirely relieved of the weight of the floors, and carried only their own weight. The walls thus became a mask for the building, and were constructed lighter and with larger openings than would have been the case had they supported the floors. This system enabled the iron contractors to work ahead of all others. It is still used and is exemplified in the new Leiter building on State, Van Buren and Congress streets, recently erected.

RAPID EXECUTION OF STEEL FRAME BUILDINGS.

The complete steel frame building is one in which the frame actually carries the whole building. The outside and inside are one entire homogeneous construction, and the foundations which have been put in for the steelwork are those which are to carry all the other materials. The exterior and interior walls are built *on* and attached *to* the steel frame. Practically the building has no walls. The exterior frame is protected with fireproof material outside and inside, so disposed as to provide for any size or shape of windows that may be desired, and to give a decorative effect on the exterior. On such, ornamental terra cotta is used principally for the exterior, and in some buildings entirely, as in the Chamber of Commerce extension and the new German theater. Pressed and ornamental brick are also used for fronts, and English enameled brick with glazed terra cotta trimmings are used on interior courts and back walls. The inner surfaces are built with hollow building tiles, either of the hard fireclay or porous variety. The horizontal members of the steel construction are built so as to carry the entire weight of this exterior and interior covering. The steelwork of such a structure, with all its projections, bay windows and projecting cornice at the top, may be built from foundation to roof before anything else is added. The steel workers set the pace for the other mechanics. The balance of the exterior and interior work is only a filling. Vertical and horizontal bracing against wind pressure are introduced. Part of this is permanent and part temporary. It will thus be seen that the erection of a sixteen-story "sky scraper" is a race to catch the steel men.

In these buildings the floors are now generally built with a filling between the beams of flat hollow tile arches, and these are often constructed before the exterior inclosing walls are built. This system has been followed with advantage in the Manhattan and Unity buildings. But the speed with which such buildings can be completed has been illustrated in cases wherein the workmen who follow after the steel men, have been seen working on the exterior walls at several different stories at the same time. On the Manhattan building, the end walls of which are entirely finished with salt-glazed hollow building tiles, while the cornice is of brick and terra cotta, the cornice was completed before the wall beneath it was filled in. On the Unity building the granite exterior wall was being built on the first and second stories, the pressed brick layers were working on the twelfth story, the hollow tile men were putting in floors at the fifteenth story all at one time, and after the entire roof over the sixteenth story had been covered out to the exterior line of the cornice. On the German theater the exterior wall was commenced at the third story.

Other illustrations of the rapid erection of "sky scrapers" might be cited. Night work by electric lights has been called into requisition during the past winter, with remarkable results, on three other buildings. But this has been always possible and is not a novel feature, being also an expensive one in which the question has been to gain more in rents than is lost by extra time.

THE CONSTRUCTION OF FIREPROOF FLOORS.

Fireproof floors of wooden joists with fireproof ceilings beneath are not now under consideration. They will be the subject of a future article. Actual experience has demonstrated that steel construction may be supplemented by fireclay construction so as to give a result which it is safe to call fireproof. This is not always the case with fireproofing attached to wood. Fireproof floors now referred to are of three kinds: First, those in which the skeleton construction is of straight steel girders crossed by steel I-beams at proper intervals and supplemented by fireclay construction between the beams; second, those in which the steel girders are either tied together with iron rods, or light I-beams which serve also as struts or braces, and the fireclay arches are thrown from girder to girder; third, floors in which steel is used only in tension and fireclay arches carry all the weights of floors, without girders or beams.

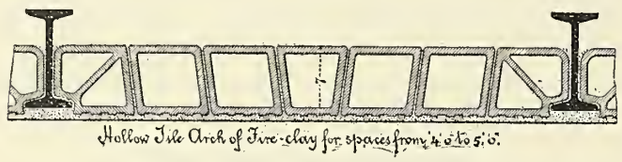
The first is the system in common use. Others have been tried successfully, but the consensus of opinion and the general practice is in its favor. As far as the use of metal is concerned the system of floor beaming is the same as that first introduced when rolled iron I-beams were invented. The principal difference is now in the general use of steel instead of iron, and whereas heavy girders of built-up iron were formerly used where long spans were required, now steel I-beams up to twenty-four inches in depth are obtainable — and twenty-inch beams can be used for long spans, or set at wider intervals for ordinary spans — which was not the case a few years ago.

THE USE OF FLAT HOLLOW TILE ARCHES.

The flat arch system is an improvement on that which was originally introduced in Chicago in 1872 by the late George H. Johnson, and at about the same time in New York by Leonard F. Beckwith. Mr. Johnson's flat arch was much lighter than that used in New York, and all the improvements in Chicago have been in the direction of reducing the weight and increasing the strength of the floors. This reduction in weight has contributed in no small degree to the possibility of erecting such high buildings. The Johnson arches were used in what was then known as the Kendall building, now called the

"Equitable." They were also used to some extent in the Criminal Court building.

The heavy style of flat arch was first used in New York to any great extent in the Delaware, Lackawanna & Western Company's Coal and Iron Exchange on Courtland street. It had previously been used to a slight extent in the corridors of the New York postoffice. No substantial improvement has ever been made in this arch as manufactured and used at New York, except that the western system of



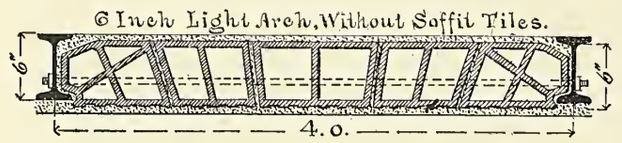
USED IN EQUITABLE BUILDING, CHICAGO.

covering the bottoms of the I-beams has been adopted in a few buildings. But the old style was used there extensively after 1872 in a number of business buildings.

It was not until the Chicago Court House was built (about 1876) that any more flat arches were used in that city. Here they were of very crude material and workmanship, and did not evince any progress. But they are substantial and have served their purpose. A better and lighter form of hollow arch was used in the Chicago City Hall a few years later. This arch was flat on the bottom and curved at the top, the haunches being leveled up with concrete. The work was done by Johnson & Co., afterward known as the Ottawa Tile Company, and now as the Pioneer Fireproof Construction Company.

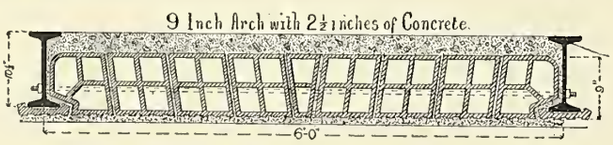
The year 1881 brings us within the range of the subject of these papers. In this year was built the Montauk block, the first of the modern office buildings of Chicago. The floor arches are from three to four feet in span, six inches deep, made of pure Ohio fireclay, weighing only twenty-five pounds per superficial foot. The work was done by the Wight Fireproofing Company.

Up to this time all the flat arches in Chicago had been made of tiles without interior webs, except in the screwbacks. In 1883, the contract for the new building of the Mutual Life Insurance Co., of



USED IN THE MONTAUK BLOCK, CHICAGO.

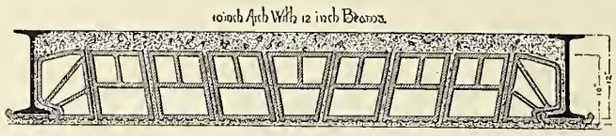
New York, on Nassau Street, New York, was awarded to the Wight Fireproofing Company of Chicago. This was the first recognition of the superiority of the western system, in the East. A nine-inch flat arch was used throughout, each tile having one vertical and one horizontal web, the thickness of fireclay when burned being only half an inch and the weight of arches thirty-three pounds per superficial foot. These were the first flat arches in which soffit tiles for the protection of the beams had ever been used in a building. The same pattern of arch was used in the Home Insurance building at Chicago. The following illustration shows one of these arches.



USED IN HOME INSURANCE BUILDING, CHICAGO.

The use of protecting soffit tiles in this style of arch having thus been practically demonstrated, it was soon taken up by other manufacturers, and is now in general use in all Chicago and western work. This was an important desideratum. The old style of flat arch such as that in the Kendall building and Montauk block (as can be seen in the illustrations) was only set about half an inch below the bottom of the beams. This space was filled with an extra thickness of the first coat of plaster. The surface of the plaster being colder under the beams than under the hollow tile, condensed the smoke in the atmosphere, and the location of the beams was soon indicated by black streaks on the ceiling. This was especially the case in cities where soft coal was used for fuel. The use of tile under the beams has not only effectually prevented this, but has furnished a reliable fireproofing for the bottoms of the beams. The form of tile best adapted for this purpose is shown in the illustration last above given. It will be seen that the tile only touches the beam at its outer edges, the center being recessed so as to leave an air space of about a quarter of an inch.

A lighter form of webbed arch, ten inches deep, and yet of great strength, is shown in the following illustration of floor construction as



USED IN CAXTON AND PONTIAC BUILDINGS, CHICAGO.

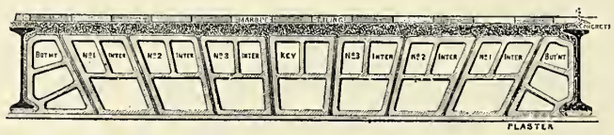
used in the Caxton and Pontiac buildings, Chicago, both of which were designed for printing and light manufacturing.

Flat arches entirely made of porous terra cotta have been used within the last few years, the most prominent instance being that of the Auditorium building, where they were first used on a large scale. The most recent are the Monadnock and Kearsarge, the Title Guarantee, the Athletic, and the new warehouse of the Lake Shore & Michigan Southern Railroad company. They are similar in section to the fireclay arches, but the shells and webs of the tiles have about twice the thickness. The weight, however, is about the same.

It has latterly been the custom of architects to call for arches of greater depth than is necessary for strength, but for the purpose of dispensing with the weight of concrete filling. The following illustrations show the two systems of twelve-inch flat arching that have been used. These are practicable for spans of nine feet where the test weight is one thousand pounds per superficial foot.



USED BY THE WIGHT FIREPROOFING COMPANY IN THE BOARD OF TRADE AND TELEPHONE BUILDINGS, CHICAGO.



TWELVE-INCH ARCH, USED BY THE PIONEER FIREPROOF CONSTRUCTION CO. IN THE INDIANA STATE CAPITOL, INDIANAPOLIS.

(To be continued.)

Gen. William Sooy Smith's Paper on High Buildings Criticised.

GEN. WILLIAM SOOY SMITH, the distinguished civil and consulting engineer, read a paper before the engineering class of the University of Illinois, on the 31st of March, on the subject "High Buildings and their Foundations," which was published in full on the 1st instant in the Chicago *Tribune*. The publicity thus given to his elucidations and opinions on a matter which is now engrossing so much thought, has made them the subjects of much comment. The *Tribune* has interviewed some of our most experienced architects on the statements made in this paper, and printed their somewhat brief comments. Following out the same line of inquiry the following letter was addressed to one of our contributors who is well versed in this matter, both by education and experience:

P. B. Wight, Esq., Consulting Architect:

Dear Sir,—As General Smith's recent paper on "High Buildings and their Foundations" has been published in the daily *Tribune* and commented upon by some of our leading architects, we would like you to give it your careful consideration, with a view to making an analysis of its subject matter, and to give your opinion as to whether or not the deductions therein contained are calculated to cast discredit on the many splendid structures recently erected in Chicago, of whose construction he does not seem to approve.

Yours truly,

Editors Inland Architect.

The reply to the inquiry is as follows:

Chicago, April 6, 1892.

To the Editors Inland Architect:

General Smith's paper was in many respects a surprise to me. I might have expected some of the statements he has made from a non-resident of the city, to whom such constructions as we have been

making during the last seven years are a novelty. Theoretical men can often apply their rules to the criticism of what others have practically and successfully accomplished, with a certain degree of plausibility. But Mr. Smith is not of such. He has lived among us and been an eye-witness to the gradual development of a new system of construction during the entire time, and he has never before condemned it to my knowledge.

It is with some hesitancy that I venture to reply to your inquiries. General Smith is a friend with whom I have frequently discussed cognate subjects, and with whom I have been associated on an investigating commission to ascertain faults in construction. In these matters our opinions have always agreed. He is today the highest authority on underground constructions. His experience in tunnelling, and on the construction of deep and difficult foundations for bridgework, is perhaps greater than that of any other living American, and I believe that there is no structure that could be proposed for any site, however disadvantageous, that he could not find a way to build a sufficient foundation to sustain. All the suggestions in his paper are practicable ones, but that does not imply that they are *good expedients*. They are the opinions of an engineer constructor which can be sustained from the engineer's standpoint only. But they are not the opinions of the trained and scientific architect whose training has been supplemented by large experience.

It has been the custom of late (and to a great extent also it has been a fashion) for architects to employ constructive engineers to solve their problems. But this work has been done on the lines laid out by the architects, and has not originated with the engineers. The result has been a solution of many of the problems connected with the erection of our high buildings. It has made our high buildings safer and better than our low ones, because *all* the parts have been subjects of investigation, which was not formerly the case. General Smith, besides knowing that all this has been done, has seen some of these buildings stand long enough to be in themselves a contradiction of many of his assertions. Some have been the subjects of the contractions and expansions of six seasons, without showing any of the deteriorations to which he says they are subject. The only test to which they have not been subjected has been that of a general conflagration. But there have been instances of fires existing in several of the new fireproof buildings of Chicago, in which the fire did *all the damage that it could do under the circumstances*. I will mention for illustration, the Montauk block, the Ryerson building at Wabash avenue and Adams street, the Home Insurance building (during construction) and the Ashland block (during construction). In a recent fire which was reported to have destroyed the Arc Light & Power Company's building, the north end of the building, which had just been reconstructed and fireproofed, was saved just so far as the steel construction and fireproofing extended.

In the Minneapolis building to which he refers, that of the Tribune Company, the floors were supported by wooden joists only two inches thick, and were not deafened on top, with good cement or mortar. The tile ceilings, attached to joists too light for any good building, had been removed in many places to make room for shafting and machinery, and the first floor that gave way allowed a printing press to go through to the cellar, carrying the fire with it. But in the same city, two years later, there was a building — the Lumber Exchange — one part of which was but a makeshift in the way of fire-protection, and the other part was new and constructed with steel and the best fireclay tiles. Fire destroyed the old part, and though there was no attempt to cut off communication with the new part it was saved. This has been already described in detail in The Inland Architect.*

Now, with regard to some of General Smith's specific statements, I will only mention those wherein I do not agree with him. First, with regard to the compressibility of wet clay. I do not believe that the settlement caused by a pressure of 3,000 pounds per superficial foot is due in any great extent to the expressing of water. The settlement is due to the *elasticity* of wet clay which is greater than that of dry clay. If you press your finger on the gelatine pad of a hektograph you will find that the gelatine rises in a wave around your finger, and that when your finger is removed the wave disappears and the original surface is restored. I began to have serious doubts that the clay under old buildings which had been destroyed was compacted, in my first attempts to build some new buildings on old foundations after the great fire. I was told that they were well "settled," but found that they settled more than I expected when the new walls went up. This fact was, as I afterward ascertained, that the clay had *recovered its position* partially when the weight had been removed by the burning of the superstructures. And this is how I found it out. I had occasion to take down part of a very heavy building, and it happened that before doing so I had taken accurate levels of the first water table. When the wall had been taken off to near the street level, I noticed one morning that a very large stone lintel was broken. One end was on a pier whose load had been removed and the other was in a wall still standing. I sent for the surveyor at once, and we found that the piers from which the loads had been removed were ⅝ to ¾ inch higher than at the last previous leveling, while the pier which still had its load was the same as before. A distinct "bulge" upward could be seen by the eye along the top of the water table. *The clay had risen with the removal of weight.* I therefore formed the opinion that there is an elastic limit to the compression of uniform wet clay under each variation of load, and that the water is not expelled but puts the clay into a more or less elastic condition. By measurements of settlements in investigations, of which I cannot now recall the details, I found that they were about two inches with weights of 4,000 pounds per foot, that this settlement took place mainly between two thousand and four thousand pounds, and that with loads above four thousand pounds no estimate could be made of their amount. There are two buildings in this city loaded to about six thousand pounds per foot. The first is the Palmer House, the second is the City Hall, in which the computation was carefully made; but as the weight was beyond the limit of elasticity of the clay the settlement was very uneven. These data were made from twelve to seventeen years ago, and were from buildings whose foundations were about one foot above datum on the surface of the clay bed where shells are always found.

As for the dryness of the cellar under the Auditorium after it was erected, I am unable to explain it, but do not see how the compacting of the clay under the main walls could make a pit under the stage dry. If the water was squeezed out, that is the part which should have retained it. But I know why the ground under the Auditorium was wet before it was erected. There was a flowing artesian well in the cellar, which had been unchecked for twelve years, the piping of which had rusted away, and which it gave them great trouble to stop up.

General Smith, in describing how the steel-frame structures came to be adopted, says: "In view of the great height and consequent great weight of our principal buildings, it is important that materials should be used in their construction which unite in the highest degree lightness and strength with the other qualities of good building materials." Ten-story buildings, like the Montauk, the Gaff and the Counselman, had been built with brick walls on scientifically constructed foundations which stood admirably, and did not excite comment. Now, a steel-frame building sixteen stories high is about as heavy as a ten-story building with brick walls and requires about the same amount of foundation. The introduction of the steel frame made it unnecessary to do anything more to the foundation. He might as well have said that the steel frame after all only made the building more striking in appearance and added to the revenue of the owner without increasing the expense of foundation.

But here is a sentence in the paper referred to, which I would like any candid man to read attentively, and ask him by what line of argument he can be made to believe it, for certainly none is given, and I will not attempt to answer it.

> There may be steel buildings in which the fireproofing has been so well done that they will pass through an ordinary fire without such failure. But if the steel becomes even moderately heated its stiffness will be measurably diminished and the tensile strength of the upright members so reduced as to cause them to bend and yield. This is more likely to occur, as the horizontal beams and girders will at the same time expand unequally from the different degrees of temperature and throw the posts out of vertical and into buckling positions, in which case the building will be likely to come down with a crash.

The use of the words "may be" at the beginning seems to be the only warrant for such an assertion. It is, however, a direct charge against the sufficiency of the fire-protecting system that has been here brought to greater perfection than in any other city. Mr. Jenney has I think sufficiently answered this in his *Tribune* interview.

I earnestly hope that General Smith himself will find occasion to review such unsupported statements.

No difficulty has ever yet been encountered growing out of the expansion or contraction of the metals entering into the construction of Chicago buildings, occasioned by the natural change of seasons. As a matter of fact these large fireproof buildings are maintained at a very even temperature winter and summer, for all are heated by steam in the winter, and the temperature of the interior seldom if ever falls, even at night.

*See Inland Architect for August, 1891, page 7.

The latter part of his paper is entirely devoted to an argument in favor of the use of piles, *driven down to the rock*. I do not think this has ever been done in Chicago, though many of the best foundations, which he cites, are on piles driven down to the dry clay, sometimes called "tunnel clay" for the reason that its existence above the rock surface has enabled us to establish our entire water supply system. There is no doubt that piling must be resorted to where we cannot find room for foundations bearing 3,000 pounds on a foot of clay. There is economy in it, too, if they are driven to the tunnel clay, but not if they are to go deeper. The difficulty of draining "pits" in which to drive the piles will be almost insuperable, and would be another item of expense. The main reason why this would not be a "good expedient" will be found in the difficulty of taking care of adjacent buildings, which I understand has already been experienced in the case of the German Theater. Only in case the whole business part of the city should be rebuilt again and a uniform system of pile foundations be required by law, could the methods advocated be adopted. The cellars could be deepened and deep drainage established only for the whole business part of the city at one time. This would mean a new system of sewerage for the whole, of immense expense for installation and much more for maintenance, as all the sewage would have to be lifted up to the lake or river. In San Francisco piles are used in the district east of Montgomery street. Adjacent buildings are not injured by new foundations, *for they are all built on piles.*

The Chicago system of steel foundations, which are built to yield, but in pretty well-known amount, has already given rise to another expedient now frequently put in use here (it having been first used at my suggestion in the erection of the Montauk block), to prevent injury to adjacent buildings. This is the simple one of putting them on screws where they are likely to be dragged down by new structures. It was effectively used lately in the erection of the sixteen-story Unity building. It is always possible to do this when new steel foundations are built on the clay, but not so easy when piles are used.

The danger of allowing limestone piers and columns to be used in place of steel, as suggested by General Smith, has been sufficiently commented on by others. The stone pier which he tested to 800,000 pounds, when it showed evidence of the first yielding, would probably have crushed at twice that load, or 800 tons. The area of this pier, which was nine feet high, was about equal to that of a cast-iron column fourteen inches in diameter. Such a column, if of one-inch metal, would, according to the accepted formula, crush at 1,742 tons. The safe strength of such a column, with a co-efficient of safety of five, is 345 tons. The safe strength of General Smith's limestone pier, with a co-efficient of four, would be only 200 tons. The difference in strength is manifest, and fully demonstrates the economy of the iron with regard to the room occupied.

I need not continue to quote from tables of the strength of iron and steel supports. Anyone can compare the size of General Smith's pillar of limestone two feet square and nine feet high, which he says has a safe sustaining power of 500 tons, with that of a cast-iron or rolled steel column that would do equal duty.

In conclusion, and as answering the latter part of your inquiry, I can only say that he has not succeeded in casting any discredit on the construction of our steel-framed "sky scrapers." It has been said by some architects that there is danger of cheap work and flimsy construction being embodied in them if they should fall into inexperienced and incompetent hands. It is true that a few of them are of very light construction; but not one of those erected up to the present time has yet shown evidence of failure or weakness, while not infrequently buildings of the ordinary size and old construction, built during the same time, have failed in many ways and even collapsed. General Smith's paper does not contain enough evidence to convince the owners of our high buildings that they are in any way defective. It can only be admitted that there are degrees in the value of the fire-protecting methods that have been employed. Some are better than others. This paper ought, however, to be productive of good. It should set owners and architects thinking; it should teach them to discard new "cheap and nasty" fireproofing materials which are beginning to be introduced only because they are cheap. They are used often as clubs to beat down the prices of those who furnish the best, and who should be paid for the best. I trust, therefore, that this discussion will warn grasping investors and unprincipled architects not to attempt any imposition upon the confidence of the public (who must eventually pay for such buildings) by scamped constructions and makeshift expedients for fireproofing, a tendency that has greatly been feared by those who are interested in what has already been so successfully done.

Yours truly,

P. B. Wight.

Proposed Technological School from the Standpoint of the Architect.

THE architect who has risen from the ranks of the building mechanics almost belongs to the past. The architect graduated from the drawing board will soon follow him. The demands made upon architects are increasing so rapidly, that before long only those of high special artistic and scientific training will be able to enter the race for professional position with any hope of success. The technological and art school is, therefore, an essential part of the future of architecture as a profession. I shall endeavor to demonstrate that this school will do better work for architects and for the public if its curriculum embraces more than what the German aptly calls "Brodstudium," which term may be paraphrased as "bread and butter studies."

Buildings are erected to serve every want and emotion of cultured man. The higher and broader and more diversified the culture of a community, the greater in number, the higher in quality, the more varied in purpose will be the buildings which its architects are called upon to design. The more intimate the acquaintance of the architects of any period with every phase and development of its culture, the greater will be their power of usefulness to themselves and to their contemporaries. And this is verified by the fact that the architects of the past whose names have come down to us as epoch-making were all many-sided men, at once architects, sculptors, painters, engineers, musicians, etc.

For the culture of our day is many-sided. It has become something more than a knowledge of the "humanities." It involves a knowledge of nature and all her known phenomena and processes, and of the means employed to learn her secrets; a knowledge of man and of his history, of his aspirations and wants, of his discoveries and of the many processes and conditions which are part of human civilization. I acknowledge that no one mind can master all this, and that another "Kosmos" will never be written by any one man. But this should not discourage us, and we should not, because we cannot master all culture and all knowledge, confine our own individual culture only to such exercise of our faculties as may be necessary for barely earning our bread and butter.

The future does not belong to those who can only do, no matter how well, the tasks assigned them by others. The future belongs to those who can discover new outlets for human enterprise and activity, to those who can point out new methods of ministering to human wants, and, chiefly to him who will show man new wants and with them the means of satisfying them. The architect of the future must therefore know nature and her products and phenomena, man and his history and philosophy. His intellect must be trained not merely with book knowledge, professional and general, but he must know and understand the workings of the minds and souls of the men of his day. Particularly should he be able to commune intelligently and sympathetically with the most highly developed of his contemporaries, with those who are best able to originate or to conduct great movements and enterprises, or who are best qualified to appreciate and support the initiative in new directions of the progressive architect.

It is true that the day of the "self-made man" is not and never will be over. But the number of university men in active business life is increasing most rapidly, and even the typical "self-made man" of the day endeavors to make good the deficiencies of his early education. But the self-made architect is leaving the scene, nor will the stage much longer have room for the architect of merely technical or merely artistical training. We shall soon enter upon the reign of the architect of a culture broad and deep and of high standing among the best in his community. And we who are of an obsolescent type, we also shall profit by the advent of our successors. As these shall one by one appear upon the scene, and shall be honored and glorified by men, their glory will be reflected upon our whole profession, and we shall all rise in the esteem of the public because we are of the same profession as those whom the world deigns to honor and to magnify. Who among us is there who has not thus profited by the admiration of the public for the genius of Richardson, of Hunt, or of Stanford White? Who is not the gainer by the public consciousness of the existence in our ranks of men of the phenomenal capacity as business organizers and executive officers, as Post or Burnham?

An absence of sympathy and of the power of understanding one another's modes of thought as between architects and clients has often been, and with justice, too, made the subject of complaint by both professional and layman. And, strange to say, this failure to comprehend what are the wants and ideas of the house-building and house-using public is much more frequently the characteristic of the

school-trained architect than of the much-despised "carpenter architect," or of the architect graduated from the drawing board. I blame for the existence of this evil the segregation of the architectural student in special schools where he consorts only with his own kind, where he is trained in estrangement from the ordinary business of everyday mankind. The graduates of these schools emerge from them as specialists and technicians. And the more exhaustive their studies, the more thorough their artistic and technical training, the more contracted is the horizon of their power of observation of the wants and the thoughts and failings of their fellow men. And when a course of study in a European art school crowns the work begun in an American technological school, the result is a still wider divergence between the service which the highly trained artist and architect wishes or is able to render and that which the public wants.

The client does not employ an architect for the purpose of furnishing sites and funds for the carrying out of school problems. He is generally a very prosaic, businesslike personage who has certain very positive notions as to the generally intensely selfish and not at all altruistic purposes for which he wants his money expended. He goes to the trained architect in the hope that this much-vaunted training will be applied in the service of his sordid aims, and not for the glory of any CAUSE, or of any SCHOOL or STYLE. But years of valuable time and millions of money have been and are being wasted in bringing about an understanding between architects and clients by which the former will learn that even the best and highest forms of technical skill and artistic qualifications exist not for their own sake, that there is no reason for their being, except if they are intelligently applied to purposes and ends, acknowledged as useful and desirable by members of the client class. And by the same tedious and expensive process clients are being taught that it is their function to inform their architects fully and unreservedly as to the results they wish to attain and as to limiting conditions, financial and otherwise, as far as known to the client, but to leave to the architect, once fully instructed in these essentials, full charge of the technical and artistic solution of each problem without petty interferences. In the case of those who graduate from the workshop into architecture there is from the outset a better understanding between architect and client. Both have known each other and have had such personal intercourse and contact with each other and with each other's friends that they are in accord as to the essentials of the work upon which they are engaged.

But the school-trained architect has been so sequestered in his classroom and absorbed in his studies of how to do things that he has failed to note what are the things to be done and how those who are not of his school want them done. He is impatient with his first clients because they do not set him problems after the manner or in the words of the professor, and because they are less interested in his reminiscences and sketches of travel in foreign lands than in the conditions and wants of the particular building which they want to erect. On the other hand, these first clients, noting these peculiarities of their architect, become in their turn impatient and as contemptuous of his idealism as he of their sordid materialism. In short, they are not in touch with one another, and the consequent injury is borne not only by the architect and first client concerned in each case, but by the entire public, and by the architectural profession as a whole.

While it is impossible to prevent the harmful influences of callow youngsters in the work of any pursuit or profession, an effort should be made to minimize them and to shorten as much as possible this period of callowness. There is much to be said in favor of the method of education so boldly adopted by Mr. Antony Weller and so brilliantly illustrated by Mr. Samuel Weller; but there are many reasons why it cannot be applied to the training of young architects. But if the architect can be left to educate himself in the swim of business and affairs, let him, at least while at his studies, be thrown together with other students, non-architects, men who will be of the mass of those who erect or who occupy the buildings of his future. Our great universities will send out at least five thousand graduates this year. Their number is constantly increasing. It will ere long be ten thousand or more per annum. In the hands of these young men will be the initiative and the control of most of the better building to be done in our country in future years, and if our young architects are educated jointly with them and thus kept in touch with their future clients, much waste of effort, time and money incident to our present system will be avoided.

This is my argument for the formation of a technological school as part of the new University of Chicago. I submit it to my fellow architects and their clients, in the hope that it may be found sufficiently convincing to cause the raising of our share of the sum required for this noble purpose. DANKMAR ADLER.

The Decorative Uses of Sculpture.

IN a paper upon the decorative uses of sculpture in relation to architecture read before the Society of Arts, Mr. E. Roscoe Mullins said: "* * * While speaking of the danger of disconnecting sculpture from architecture, I should like to refer to two tendencies of the present day. One affects the art itself, and is, it appears to me, as pernicious to its free development as the old-fashioned desire to produce only something beautiful, and that is the influence upon sculpture of the sister art of painting, which necessarily follows from the importance given to the yearly exhibitions, especially at the Royal Academy, in which the preponderance of painters to sculptors is as nine to one. Truthfully modeled surfaces and the literal rendering of nature naturally have more weight with a painter than with a sculptor, for, in painting, imitation of nature cannot be carried to too great an excess, and the most thoroughly realistic work will still bear the impress of art on its canvas; but it is not so with sculpture, for a plaster cast from life will give the exact imitation without any art at all. The result of this painter-influence leads often to the neglect of design, composition and all thought of suitability to any given place. The other evil to which sculpture is always liable, if disconnected with architecture, is to become the property of the few instead of belonging to the nation as a whole.

"In treating of the art from a decorative point of view, I have purposely kept my mind on the architectural side of sculpture, as the most important form of decoration, but I would wish it understood that I apply the term decorative sculpture to the covering of any surface that needs decoration be it what it may, from the walls of palaces and municipal buildings to fire-dogs, knockers, clocks, lamps, mantel-pieces, jewelry, etc. Of course these latter can never attain to the importance of architectural sculpture for the reason above mentioned, that they must, for the most part, belong to the individual and not to the nation, but otherwise they merit as much thought and care as surfaces that are more pretentious. In this paper I cannot do more than allude to them, but the mere mention of the above list shows the enormous field open to the sculptor, and the very wide range of his art as a decorative one. Neither do I think it necessary to draw any fine line between useful and purely ornamental articles. The esthetic enjoyment of a fine knocker is, it is true, not in rapping with it, but the excellence of the artistic design and execution need not interfere with it as a useful article. I have often wondered, by the way, who buys those marvelously carved meerschaum pipes that one sees exposed in tobacconists' windows, and still more who smokes them. This is one of those instances, I think, when we may exclaim with the poet that 'Beauty unadorned in adorned the most.' I must confess I can give no reason, save as Shylock puts it, 'a lodged hate and a certain loathing' I have to the 'adorned' article in question. * * *

"To sum up the few ideas I have ventured to express: I maintain first of all that sculpture must in the main be decorative, allied chiefly to architecture, and speaking to us from its walls.

"When thus linked with architecture I would have it free within these limits, to develop the individuality of the artist, and the characteristics of the time; I should wish it to be as true to latter day life as possible, and thus be in touch with the age. If the artist has imagination, and can see through the surface of life into the hidden mystery of things, let him by all means represent it; if not, let him portray life as he sees it, and we will hope that the necessities of the conditions under which he works, that is, his architectural surroundings, will tone down any too strongly developed tendency to realism. Why, even our foe, the frock-coated gentleman, might not pose amiss, when twisted into a miserere or a gargoyle!

"Such are the few thoughts that seem to me to be important to us sculptors at the present day, and their importance to us means importance to the nation at large; for, if art is to be of any use at all, it must be in touch with the nation. As Mr. Frederic Harrison has lately said, when speaking of the great Gothic period of art, and the memorials it has left to us, 'These vast temples are the creation of generations of men, and the embodiment of entire epochs; and he who would know the Middle Ages should study in detail every carved figure, every painted window, each canopy, each relief, each portal in Amiens or Chartres, Rheims, Bourges, Lincoln or Salisbury, and he will find revealed to him more than he can read in a thousand books.'"

In the discussion of the paper which followed, Mr. Reginald Blomfield said there were one or two points he felt a little disposed to quarrel with. * * * However, the subject of the paper was sculpture in relation to architecture, and it was undoubtedly a burning question of the day, in relation both to sculpture and architecture, how the two could work together, and what was the common ground on which they could meet. What struck him in London was the enormous quantity of sculpture about and its exceeding badness. In Shaftesbury-avenue there were a great quantity of houses, and he did not think there was a single piece of good sculpture in any of those new buildings, although there was a great quantity of it. There was one building which struck his eye very prominently, plastered all over with figures modeled in terra cotta, turning themselves inside out, standing on their heads, eating their tails and doing all sorts of things; but there was no meaning in it. It might be all very pretty, but, it seemed to him, that any intelligent person who took a chisel and hacked the face of the material, would get just as valuable an effect with regard to the architecture of the building as was accomplished with all those arabesques, or whatever they might be. He had seen the same thing in another important building, whose face was simply bespattered with this sort of rubbish, though, in the same building, there was some very beautiful work by a sculptor, as opposed merely to the ornamental carving. The work

of that sculptor was very beautiful, and seemed to him to add much to the value of the building. He spoke as an architect, and did not see why architects should not resolutely set their faces against this stuff, and all merely conventional ornament; and, when they had the chance of having money spent on sculpture to concentrate their effort on one point, see that the workmen had something to say, and that the work was done by a competent man. He was afraid they did not know enough about each other. Architects did not know enough about sculpture and modeling — and consequently, did not understand sufficiently the point of view from which the sculptor went to work. On the other hand, sculptors did not know enough about architecture in the best sense. There were of course brilliant exceptions. If sculptors would occasionally give architects a hint, it would be much to their advantage; and sculptors, on the other hand, might perhaps learn a trifle or two from the architects.

Association Notes.

NEW YORK EMPLOYING PLASTERERS' ASSOCIATION.

On April 20 the Employing Plasterers' Association, of New York, will formally open their new rooms by a dinner given at Jaeger's, on Madison avenue and Fifty-ninth street. This strong and progressive organization has for its president Mr. John McGlensey, and under his leadership has taken first rank among similar organizations, not only in New York but in the country at large.

DENVER ARCHITECTURAL SKETCH CLUB.

The past year of our club life has been a very successful one in every respect. The club is in better shape than it has ever been in all its past history. The growth of the club in membership and usefulness has been very satisfactory to its officers and members, whose every effort has been crowned with success.

The meetings, classes and lectures have been unusually well attended, especially the lectures by Mr. F. E. Kidder.

The officers for the year 1892 are as follows: President, William Cowe; vice president, J. J. Humphries; secretary, George F. Harvey; treasurer, Thomas A. Green; board of directors, the officers and J. R. Rainbow, E. R. Rice and J. Bevan Phillips.

The official paper of the club is The Inland Architect and News Record.

The membership of the club includes Mr. Burroughs, William Cowe, W. E. Fisher, Mr. Gallup, T. A. Green, D. R. Huntington, George F. Harvey, John J. Humphries, James Huston, W. F. Jones, J. Gustave Luick, W. T. Nichols, J. Bevan Phillips, H. R. Pridham, W. Pell Pulis, Fred Pishel, John A. Perry, Charles Quayle, E. R. Rice, J R. Rainbow, H. Read, F. A. Stearns, Harlan Thomas, Harry Thomas.

Mr. F. E. Kidder is giving a course of lectures on construction, which are being very well attended, and are doing the members of the class a great deal of good. He is making the course very complete, starting with foundations and going through all the branches to the roof.

Mr. J. J. Humphries is giving a series of lectures on "Architectural Design."

Other members of the profession are to give lectures from time to time on architectural subjects.

There is also a class in modeling in clay and in free-hand drawing, under the instruction of competent men.

The list of competitions for the first six months of 1892 is as follows:

January—Porch for a country church in the thirteenth century. English gothic.

February—An entrance to a private dwelling, introducing classic columns.

March—A pavilion over a mineral spring, not to exceed 300 square feet in area. Classic.

April—A battle monument, not to exceed twenty feet in height, to a fallen commander; erected by the survivors of his regiment. Classic.

May—A music pavilion, in a public square, to accommodate twenty-five musicians. Classic.

June—Observatory tower, not to exceed fifty feet in height, to be located in a public square. Classic.

Denver Architectural Sketch Club.
By W. Pell Pulis.
T. A. Greene.

EDINBURGH ARCHITECTURAL ASSOCIATION.

Mr. John James Burnet, of Glasgow, read a paper at a meeting of the Edinburgh Architectural Association, March 24, on "The Relative Position of the Architect and the Craftsman." The lecturer referred at the outset to the want of definiteness in the architect's relation to his client on the one hand and the tradesman on the other, felt by both alike, and resulting in much that was unsatisfactory to the client and discouraging to the tradesman and the architect. He believed there had never been an age when the life of the individual was more governed by the practical necessities of the day, and never before was the architectural problem more easy of enunciation. The architect of the present day was by training a master builder, with a thorough knowledge of the science of building, keenly appreciative of the possibilities of each craft, and ingenious in their application to the needs of his fellow-men; but, more than that, he was an artist. He was not a drawer of plans and a framer of contracts as such; that was only a means to the end. Although the master builder might not be an architect, the architect must be a master builder. An architect must prepare himself to act, if his work was to have any of the grander and nobler qualities of master-building, with the keenest and most detailed appreciation of the crafts his particular work was in, their co-relation, and the co-relation of the contributory arts. If the work was to be true and noble architecture it must not only be suitable for its purpose, but it must be the work of one man, executed by craftsmen and artists, each free to the development of his own art or craft, with that individual liberty of thought and action without which art in any form was impossible, leaving it only to the hand that guided him to his work and to restrain him in its execution.

New Publications.

CHICAGO, THE MARVELOUS CITY OF THE WEST; a History, an Encyclopedia and a Guide for 1892, written and compiled by John J. Flinn. Chicago: The Standard Guide Company, publishers. Cloth, $1; gold, $2.

The title under which this book is popularly known is the "Standard Guide to Chicago," and contains, aside from indexes, engravings and miscellaneous matter, six hundred and thirty-two pages of information of every description concerning Chicago and its environs, the subjects being arranged in alphabetical order and grouped under alphabetical headings in such a manner as to make reference to them an easy matter for the inexperienced. A most complete index, covering in itself about eighteen pages, adds immensely to the value of the compilation. The index is "crossed," so that the hurried or impatient searcher after facts may lose neither time nor good humor before finding what he seeks. There are between 125,000 and 150,000 subjects treated of in this volume, from the number of miles of sewers in the city to the earnings of the national banks, and from a description of the Exposition buildings to the presentation of the factory products and the wages received by the employés of the city. The work is divided into five parts. Part I gives a brief historical sketch of Chicago from the discovery of the mouth of the river, from which it takes its name, by the French missionaries, until the rebuilding of Fort Dearborn, after the massacre. Part II tells about the city of Chicago, its banking business, its commerce, its government, etc. Part III is an encyclopedia, covering every subject clear down the entire length of the alphabet from "Amusements" to "Water Transportation," and handling on the way the architecture of the city. Part IV is devoted to the World's Columbian Exposition. Part V is the Guide, which takes the visitor on thirty-one daily trips through the City of Chicago and vicinity. There are contained in this volume seventy-two elegant half-tone, full-page engravings, illustrating the mighty buildings of Chicago, scenes on the principal boulevards and thoroughfares, in the parks, in the great industrial centers and in the suburbs, with buildings of the World's Columbian Exposition. There are four maps, including a large illuminated map of Chicago, which is contained in a pocket in the back cover of the book.

GRAPHICAL ANALYSIS OF ROOF TRUSSES, by Charles E. Green. New York, John Wiley & Sons.

This is a new edition of what is now an old book. The substance of the book appeared first in the *Engineering News*, then published in Chicago; and the first edition of the book was published there in 1876. The present edition is larger and somewhat improved, and matters are given in greater detail. It is published as the first volume of a work on trussed arches. This volume is an excellent work of its kind and well adapted to the beginner in graphical statics. It confines itself to the theory. Among other good qualities, it has one, that is, it does not refer to analytical methods to any extent, to prove that the graphical calculation is correct. Of course the graphical and analytical methods of calculation serve, in architects' phraseology with regard to drawings and specifications, to explain, illustrate and supplement each other. Nevertheless, it has been heretofore too much the habit to consider that the graphical methods should be accepted as true only, or principally, because they can be proven to be so by analytical methods. We wholly dissent from such a position. Doubtless in some cases one way is more rapid and convenient than the other, but graphical calculation is amply sufficient to prove its own truth without relying upon any aid outside its own domain. However convenient and desirable it may be to do so at times, there is no more necessity for proving that the graphical calculus is correct by means of the analytical than there is to prove the analytical is correct by means of the graphical. We say this because the graphical calculus will never take its proper place until writers cease to rely upon the analytical for their demonstrations. The work is. not particularly original, but is well adapted to the beginner, as has been before stated. We have noticed but one thing which calls for special comment, and that is, the calculation when the loads on trusses are neither symmetrical nor vertical. This, we believe, would admit of improvement. The original edition of this book was published at a time when there was much less known about graphical calculus than there is now, and what was known was much less diffused. It was a great help to the diffusion of this knowledge. The present edition is an improvement upon the old, and it should be in the hands of every one entering upon entering upon the study of the subject.

RETAINING WALLS FOR EARTH, by Malverd A. Howe. New York, John Wiley & Sons.

ACTUAL LATERAL PRESSURE OF EARTHWORK, by Benjamin Baker. New York, D. Van Nostrand.

The first mentioned work, like all the works of the same author that have come to the notice of the writer, is essentially a mathematical one; that is, the pressure of earth is considered principally from a mathematical standpoint. A large amount of originality and dexterity in the use of formulæ is shown. The matter of retaining walls of any importance is seldom brought under the consideration of the architect. Such works come rather to the engineer, Nevertheless, it is well for the architect to have some knowledge of the subject. There is no subject more difficult to fathom, and less amenable to mathematical treatment than that of earth pressure. The difficulty

is not in the calculations. It is in the data upon which they are based. It is almost impossible in difficult cases, to get the exact data, or at least to embrace all circumstances which, though unusual, may occur. In the second of the works mentioned, this is very clearly shown. Speaking of the London Metropolitan Railway, and some failures that occurred, notwithstanding the experiments previously made, warranted the belief that the structures that failed should have been sufficient and stable, it says: "In neither of the above cases was failure due to a deficient moment of stability in the wall, and therefore the fact of their failure does not in any way conflict with the results of the experiments previously set forth. In each case water at the back of the wall was, as usual, the active agent of mischief; not in thrusting the wall forward by hydrostatic pressure, but in softening the clay and affording a lubricant, so that the resistance was reduced to a sufficient extent to enable the otherwise innocuous lateral pressure of the earthwork to tilt and thrust forward the wall." This is fairly illustrative of the difficulty in calculating such pressure. The writer once knew of a case where retaining walls had been built to retain the earth which formed an elevated roadway, or street, across some low ground. The street endured safely for years, when it gave evidence of giving way. An examination as to the causes of failure was made, when it was found that sometime after the street had been constructed, water pipes had been placed therein. In the course of time a leak developed, the result being that the retaining walls had to be rebuilt, and made far stronger than before. The mathematical calculations on such subjects are of considerable use, but it would not do to rely upon them; and an architect having a retaining wall to build, if it be of importance, should employ not only an educated engineer, but one who has had large experience in actual practice.

ARCHITECTURAL IRON AND STEEL AND ITS APPLICATION IN THE CONSTRUCTION OF BUILDINGS, by Wm. H. Birkmire. John Wiley & Sons, New York. Price, $3.50.

The author states in his preface that he was induced to prepare this work "because of his inability to find, among the many excellent works on the Mathematics of Construction, one that could be readily adopted as a reference book, treating of the various details of iron and steel as applied in the construction and finishing of buildings." There are chapters on the properties of cast iron, wrought iron and steel, on floors and girders, on cast-iron lintels and struts and trusses, on columns, on stairways, ornamental ironwork, elevator enclosures, doors and shutters, skylights, and on miscellaneous details of all sorts, tables of properties of beams, channels, tees and angles, etc., etc. We find few things in the book that are not accessible in other treatises; but they are here brought together in convenient shape and are clearly stated. The chief criticism on the work is that, although published in 1891, it is far from being down to date in the matter of details suited to the most modern work. The work is adapted to the needs of an architect who is erecting buildings of heights of five or six stories on foundation of rock or of incompressible soil; but it is of no special service to the architect who is called on to erect on compressible soil buildings from ten to twenty stories in height, where the problems that must be solved relate to use or omission of iron in foundation, of prevention of damage to adjacent property by sinking of party or line walls, of application of cantilever construction to outer walls, of cross-bracing horizontal and vertical, of wind pressure and allowance to be made therefor, of substitution of stone or brick or tile carried independently for the several stories in place of solid masonry walls or piers carried by the foundation for all stories, of the minimum weight of materials consistent with strength. These and kindred problems are those that confront the architect of modern iron buildings, and to these this work is merely elementary, offering only those facts that were known to the architects who set themselves to the solution of the later problems. Purchased with a correct understanding of the nature and limitations of its contents the book will not be disappointing.

LES COUPOLES D' ORIENT ET D' OCCIDENT, par Alphonse Gosset. Paris Librairie Central des Beaux Arts.

This is one of the most complete works upon the cupola in all countries and all ages that has ever been published. The subject is treated from a historical, theoretical and practical point of view in a text of nearly three hundred pages, is illustrated by twenty-five fine steel plates and one hundred and ten smaller engravings in the text. An agreeable feature is that the plans are almost invariably at the same scale, permitting an unusually satisfactory means of comparison and study. According to the author, the cupola is the theme from which both civil and religious architecture of our times may yet be started upon a new and brilliant career, and this work is designed to aid in bringing together the works of different models and comparing them with each other. How faithfully this end is accomplished, may be judged from the fact, that not only are the usual examples presented, but also modern architecture with its iron domes, even as late as the exposition at Paris in 1889, is here fully treated. From Rome and Syria, the reader is brought to consider the domes of the Mohammedans and Persians, while Egypt, Armenia, Russia and Roumania also have their dome construction analyzed. In more modern times, the domes of Italy, England and France are considered, which brings the subject to the iron construction of the present day, and the work is finished with some of the greatest French modern works, notably the domes and cupolas of the great exposition of 1889. Following out the plan laid down by the author, the text contains much valuable historical information and very many valuable comparisons, but from the nature of the case there is but little that is new, the whole work consisting rather of an able and careful selection of many examples, and fully illustrating all these cases by accurate drawings. The only new idea that M. Gosset particularly endeavors to accentuate is the desirability and feasibility of this style of construction in great modern buildings of iron or steel construction, and upon this point he repeatedly speaks in the most glowing terms. The publication is certainly most valuable for any library and of the greatest interest to all architects interested in the history of the cupola its development, and its present position as a constructive feature.

GEOMETRICAL DRAWING FOR ART STUDENTS, by I. H. Morris, author of "Practical, Plane and Solid Geometry," in Longmans' Elementary Science Manuals. London: Longmans, Green & Co. Price 60 cents.

The sub-title defines the scope of the book as "embracing plane geometry and its applications, the use of scales, and the plans and elevations of solids as required in Section I of Science, Subject I." The naïve provincialism of this sub-title is pathetic. Apparently it has not occurred to the author that any reader can be so remote or so ignorant of his intentions as to ask: "Section I of Science, Subject I" of what? In the preface we read that "this little book has been prepared to meet the wants of those students who only require the geometry necessary for the art students' course"; what course and where we are not informed. Later on we find the statement that the book covers "rather more ground than is absolutely necessary for the South Kensington examination in Geometrical Drawing," from which we may jump to the quite possibly incorrect conclusion that the "course" is a course in the school of arts at South Kensington, and that the mysterious "Section I of Science, Subject I" sustains some occult relation to the curriculum in said school. We find on page 1 the extraordinary statement that a drawing board with its corners true right angles is absolutely essential. On page 3 we find this sentence: "There are endless varieties of curved lines." There are, indeed, several endless varieties, though perhaps the author intended to say "innumerable." So far this does not promise well for scientific accuracy in thought or expression. But, as a matter of fact, the book is very much better than this inauspicious start augurs. The treatise is not overburdened with superfluous matter, and, while it assumes its propositions, it gives directions sufficiently explicit to enable the student to solve its various problems accurately. The examples are numerous and practical, and the book is better suited to its purpose than anything of the sort that we now recall.

Our Illustrations.

St. Elizabeth church, Chicago; James J. Egan, architect.

Hotel Mesa, Pueblo, Colorado; Lang & Pugh, architects, Denver, Colorado.

House for Mrs. C. J. Judd, Dwight, Illinois; A. W. Cole, architect, Chicago.

Confederate Soldiers' Home, Nashville, Tennessee; William C. Smith, architect.

House for J. G. Moore, Winter Harbor, Maine; W. W. Kent, architect, New York.

Living hall and stairs — house for J. G. Moore, W. W. Kent, architect, New York.

Congregational church at Ashland, Ohio; Coburn & Barnum, architects, Cleveland, Ohio.

Wholesale store building for the estate of M. A. Meyer, Chicago; Adler & Sullivan, architects.

Office building for Puritan Realty Company, St. Louis, Missouri; L. C. & William M. Bulkley, architects.

Chemistry laboratory for the Case School of Applied Science, Cleveland, Ohio; Coburn & Barnum, architects.

Warehouse and store building for Charles L. Willoughby, 1243 Wabash avenue, Chicago; Treat & Foltz, architects,

Protestant Orphan Asylum building, erected corner Jefferson avenue and Adair street, Detroit, Michigan; John Scott & Co., architects.

Denver Architectural Sketch Club competition for a stable for a wayside inn. Stable to be large enough for twenty horses and ten vehicles, including shed, etc. First place, W. Pell Pulis; mentioned-design, J. G. Link; remaining design by D. R. Huntington.

Office building for the Central Union Depot and Railway Company, Cincinnati, Ohio; G. W. E. Field, architect. The building is 70 by 185 feet, and stands on the south side of Third street, north of the train sheds of the Central Union Depot Company; is occupied entirely by the general offices of the Cleveland, Cincinnati, Chicago & St. Louis Railway and Chesapeake & Ohio Railway; cost $240,000.

Photogravure Plate. Residence of Perry Trumbull, Edgewater, Chicago; J. L. Silsbee, architect. A Chicago residence; Burnham & Root, architects.

PHOTOGRAVURE PLATES.

(*Issued only to subscribers for the Photogravure edition.*)

Residence of Francis T. Simmons, Gordon terrace, Buena Park, Illinois; Jennie & Mundie, architects, Chicago.

Residence of E. Brown, Evanston, Illinois; Frederick Baumann and J. K. Cady, architects, Chicago. Three full-page plates are given, showing the following views: exterior view, view in hall, view in living room.

Statuary groups for fountain for the World's Columbian Exposition, Chicago, Frederick MacMonnies, sculptor. The fountain, which is being executed in bronze at Paris, will take the shape of a triumphal barge, guided by Time, heralded by Fame, and rowed by eight standing figures, representing on one side the arts, and on the other science, industry, agriculture and commerce. This barge is preceded by eight sea horses, forming a semi-circle in front, and mounted by eight young men as outriders, who represent modern commerce. The smallest figure is some twelve feet in height and the largest twenty feet. The design of the basin is circular — 150 feet in diameter — and is flanked on each side by columns 50 feet high, surmounted by eagles. At night the fountain will be illuminated by electricity. Three full page plates are given.

Mosaics.

ARCHITECT FRANK IRVING COOPER, of Pittsburgh, is now located at 64 Fourth avenue in that city.

PLAYING CARDS.—You can obtain a pack of best quality playing cards by sending 15 cents in postage to P. S. Eustis, General Passenger Agent Chicago, Burlington & Quincy Railroad, Chicago, Illinois.

MAP OF THE UNITED STATES.—A large, handsome map of the United States, mounted and suitable for office or home use, is issued by the Burlington Route. Copies will be mailed to any address on receipt of 12 cents in postage by P. S. Eustis, General Passenger Agent Chicago, Burlington & Quincy Railroad, Chicago, Illinois.

AROUND THE WORLD.—Europe, Egypt, India, China and Japan, $610. The Canadian Pacific railway having met with so much success in its around the world tours, has just completed arrangements with the Peninsular & Oriental Steam Navigation company and the fast steamship lines on the Atlantic Ocean to continue same. Above rate will apply in either direction going via the Atlantic or the Pacific ocean, and for a slight additional cost a variation can be made in the route to include India, Egypt and Continental Europe. For further particulars apply to J. Francis Lee, D. F. & P. A., 232 South Clark street, Chicago, Illinois.

THE Burns Memorial and Monument Association of Chicago propose to erect a monument to the Scotch poet in one of the parks and invite competitive designs. The amount to be expended is $12,000, and the committee suggests a figure and pedestal with spaces for panels to be added subsequently. $200 will be paid to the designer of that accepted, and $100 for that second in merit. As almost one-third of the best draftsmen in Chicago are Scotch, and the subject is an attractive one, the most notable monument to Burns erected in the United States should be placed in Chicago by the Burns Memorial Association.

MR. BARR FERREE, whose article upon "Architecture and the Allied Arts" is concluded in this number, has made a mark in the history of architectural writing and ranks among those who have given to the architects of the country information that is invaluable. Mr. Ferree, who was formerly professor of architecture in the University of Pennsylvania, has now taken charge of the department of architecture in the *Engineering Magazine*, of New York, and that valuable exponent of engineering and architectural methods and practices will become still more valuable to the architectural practitioner who may read its pages month by month.

A BRIGHT, newsy and altogether well gotten up and edited weekly is the new *Builder and Trader*, published at Chicago. It contains portraits of W. H. Alsip, president of the Builders' and Traders' Exchange, and of Joseph Downey, president of the new masons' organization, called the Chicago Masons' and Builders' Association. The journal is endorsed by Mr. Alsip and by the Chicago Exchange, and in the field which it hopes to fill, that of an exponent of the building trade interest throughout the country, it has a brilliant future, and should meet with the hearty support of builders generally. It is published at 159 La Salle Street, Chicago, at an annual subscription of $5.

SCOTCH-IRISH CONGRESS.—The Queen & Crescent Route and East Tennessee, Virginia & Georgia Railway will sell tickets at reduced rates on April 26 and 27 to Atlanta, Georgia, and return, account Scotch-Irish Congress, on April 28. This is the only line running solid vestibuled trains through without change from Cincinnati to Atlanta, and is 116 miles the shortest and four hours the quickest. Trains leave Grand Central depot, Cincinnati, passing through the blue grass region of Kentucky, over High Bridge, along the Emory River, with its magnificent scenery, and in full view of Lookout Mountain. For further information, tickets, sleeping-car reservations, etc., call on any ticket agent or address, D. G. Edwards, General Passenger Agent, Cincinnati, Ohio.

THE INLAND ARCHITECT finds much pleasure in welcoming a new contemporary in the specialists' arena, which made its appearance on the birth of the present year, namely, the *Brick Builder*, published by the Brickbuilder Publishing Company, 4 Liberty Square, Boston, Massachusetts, at the subscription price of $2.50 a year. It is ably edited and the scope of its field of usefulness is unmistakably comprehended by the management, who are alive to the present advancements in architectural ceramics and the prophetic possibilities of the same. There is no doubt but the thoughtful and enterprising publishers will reap an abundant harvest from tilling this heretofore neglected field, and they will hereby accept THE INLAND ARCHITECT'S best wishes for such a deserved result.

IN 1884 Professor Treu published a pamphlet entitled, "Sollen wir unsere Statuen bemalen?" (Ought we to paint our statues?) which made a profound impression on the artistic world; and the perusal of this led me to give the matter careful attention, says Edward Robinson in an interesting article entitled, "Did the Greeks Paint Their Sculptures?" in the *Century* for April. Being in Europe at the time, I had excellent opportunities for investigation; and starting absolutely without bias or preconception, I made careful notes of every bit of evidence, pro and con, which I came upon during a trip through Greece and Italy, and also in the larger northern museums; as a result of which I became convinced of the following points: (1) That from the beginning of their art of sculpture, through its whole course, it was the custom of the Greeks, and following them the Romans, to paint their marble statues and reliefs. (2) That this application of color was not restricted to certain details, but covered the entire surface of the marble, both nude parts and draperies, with the possible exception of portions where the natural color of the marble served its purpose in the general scheme. (3) That the colors used were not merely tints, but strong body-colors, the aim of the artist being to imitate nature in the matter of color just so far as the sculpture itself did in that of form; that is, with a conventional idealization or generalization by which the unpleasant features of realism were avoided.

CYCLOPEDIA OF THE MANUFACTURES AND PRODUCTS OF THE UNITED STATES, published by the Seeger & Guernsey company, New York, price $10. This is a volume of nearly four thousand pages of closely printed matter, yet in very readable type, in which, in a classified form, are given the names and locations of all the principal manufacturers and producers of all the varied material that enters into the general traffic and consumption of the country. As a book of reference it is invaluable, as no matter what a party may want that is the product of labor, outside of the agricultural domain, and is at a loss as to the source where it may be obtained, it is herein clearly disclosed. It certainly has cost a large expenditure of money and time to gather and verify so much and so varied information, and the publishers are to be congratulated on the successful carrying out of their happy-thought scheme.

A MOVEMENT has been initiated by Mr. Nahum Barnet, architect, of Melbourne, to arrange for a visit of a party of artisans of various crafts to the Chicago exhibition. The selection will be made from young Victorian workingmen, probably those in the last year of their apprenticeship, and it is considered that a personal inspection of the new modes of building adopted in the large cities of the United States, and of new inventions connected with the science of building, will prove of immense advantage to the men, who will have an opportunity, through the medium of reports or otherwise, of imparting what they have learnt during their visit to their fellow workmen on their return. Mr. Barnet's proposal has been warmly received by the Trades-hall council, who have invited delegates from the Working Men's college, the Victorian Institute of Architects, and the Builders and Contractors' Association to meet at the Trades-hall on Monday to discuss ways and means of carrying Mr. Barnet's proposal to a successful issue.

Building Outlook.

OFFICE OF THE INLAND ARCHITECT,
CHICAGO, Ill., April 5, 1892.

Architects are crowded with work in nearly all of the larger cities, but a great deal of it is relatively unimportant. While there is considerable work in hand, there is a holding back by promoters and others of many large enterprises. The building and construction requirements for 1892 have not yet been clearly developed. The financial stringency and lack of confidence have much to do with the delay. House builders are slow to begin work, and large operators who entered zealously upon their work last year are now proceeding more cautiously. Railroad requirements are also held back, and the building of manufacturing establishments and shops is not being entered upon with quite as much earnestness as has been seen in former years. All this, however, does not signify very much. Plans have been perfected for the expenditure of as much capital in building operations this year as last; there is not the same need of additional capacity, and shop, house, office and warehouse room as last year, at least the necessity for as much of an increase is not as apparent now as then. The condition of the money market is not as favorable to manufacturers and general construction activity as it might be. Collections are difficult. Production is restricted to market requirements. The accumulation of stocks of all kinds is avoided. The contracting for material is delayed as long as possible. Manufacturers of building material are very careful that they do not overstep what they think is a safe limit; at the same time there is confidence in all directions that the year will be a good one, and there are no grounds for questioning this confidence. The country is gaining in all directions. The returns to capital, while not heavy, are fair, and the inducements to push forward are sufficient to engage all anxious capital. Labor is muttering here and there, but the conditions are not favorable for a general spring revolt. While as favorable report cannot be made this month as last, it is reasonable to assume that there will be no serious depression in business. The low prices prevailing in all directions are favorable to enlarged outlays. The first symptom of recuperation and hardening prices will bring out a great multitude of hesitating people who will hurry to secure supplies before an actual advance takes place.

Synopsis of Building News.

Architects are invited to furnish for publication in this department monthly or occasional reports of their new work before the letting of contracts. Reports of buildings costing less than $5,000 are not published.

Chicago, Ill.—Architects Holabird & Roche: For Hulburd Dunlevy, south-west corner of Lake and Clark streets, a three-story addition and remodeling of Ogden building. The building immediately west on Lake street will be torn down and a seven-story structure erected in its place, to be connected with the Ogden building; the construction will be fireproofed and finished up in the best manner possible, with marble and tile work, electric light, steam heat, two Standard elevators, etc. These architects have moved into a very handsome and extensive suite of offices, comprising the entire wing looking east on the top floor of the Monadnock building.

Architects Wilson & Marble: For B. C. Haulk, at 1841 Wabash avenue, a six-story apartment house; to be of stone front and have all the best of sanitary and other improvements. For O. B. Gorin, at Decatur, Illinois, a two-story residence of frame with stone basement; cost $10,000. For Milton Johnson, at Decatur, a two-story frame residence; cost $8,500.

Architects Bauer & Hill: For St. Joseph's Hospital, at Fort Wayne, a four-story addition and remodeling old building; to be of pressed brick and stone, with gravel roof; cost about $40,000. For Stettauer Bros., southwest corner of Madison and Franklin streets, alterations and additions and dividing it up into retail stores, the upper part being made into lofts; they will put in new plumbing, heating and all the conveniences; the cost will be about $75,000. The same architects also made drawings for remodeling and alterations of building situate on the southwest corner of State and Adams, for Siegel & Bros.; they will

put in new steam heating, elevators, electric light, new fronts in first and second stories. They are also preparing plans for the Bavarian restaurant to be erected at the World's Fair, for Morganthal Bros.; it will be a handsomely designed structure of staff, glass and iron, with tower 120 feet high. They also made plans for remodeling building at 88 and 90 La Salle street.

Architects Flanders & Zimmerman: For Messrs. Harms & Levering, at Petersburg, Illinois, a three-story and basement store and flat building; size 102 by 100 feet; cost $25,000. For John O'Malley, on State street, corner of Forty-sixth, seven four-story flat buildings; to have a frontage of 140 feet; cost $60,000; pressed brick and cut stone trimmings with copper bays and cornice, marble and tile work and all the sanitary conveniences. They also planned a three-story and basement school; size 130 by 110 feet; to be erected at Washington Heights; pressed brick and stone; cost $55,000.

Architect Robert Rae: For G. E. Harris, on Madison avenue, a three-story residence; 21 by 67 feet in size; to cost $10,000. The first story and basement will be of stone and above of Michigan sand pressed brick, rockfaced.

Architect Robert C. Berlin: For W. R. Burcky, on State and Sixty-first streets; a three-story and basement store and flat building, 50 by 68 feet; to cost $15,000.

Architect R. G. Pentecost: For M. Livingston, at 3406 South Park avenue; a three-story flat building; 25 by 70 feet; to cost $9,000. To be of Colorado redstone front, hardwood interior finish, etc. For Dr. A. P. Sawyer, on the northwest corner of Sacramento avenue and Fulton street; a one-story laboratory; 40 by 145 feet in size; to cost $10,000.

Architect J. L. Merriam: For S. M. Sheldon, at 4553 Wabash avenue; a three-story and basement flat building; 25 by 80 feet; to be of buff Bedford stone front; cost $12,000. For Charles Carlson, at 528 Forty-sixth street; a three-story flat building; of buff pressed brick front; to cost $10,000. For J. N. Cunning, on Lawndale avenue between Twenty-fourth and Twenty-fifth streets; two two-story flat buildings; of pressed brick and stone fronts. For William Truin, on Ogden avenue; a three-story store and flat building; to have a stone front, gravel roof, galvanized iron bays and cornice; cost $8,000.

Architect T. C. Goudy: For H. D. Overdier, at Rogers Park; a two-story and basement, frame residence; to have all sanitary improvements, furnace, etc. For Bruno H. Weller, at Rogers Park; a two-story and basement residence; frame, stone basement, etc. For H. D. Overdier, at Rogers Park; a two-story and basement residence; to be rockfaced stone basement walls, and above of frame; to have hardwood interior finish, first-class plumbing, steam heat, etc. Also making plans for two-story frame house for Mrs. White at Rogers Park. Also taking figures on a two-story store and flat building; to be built at Forty-third street and Madison avenue, for James Fitzgerald.

Architect Arthur G. Morey: For G. H. Curtis, a seven-story hotel; 86 by 125 feet in size; to be erected on Roslyn place, fronting Lincoln park. It will have two fronts of stone, the interior being finished in hardwoods, marble, tile and mosaic work, with electric light, steam heat, elevators, etc. In connection with the hotel will be a mineral spring fitted up in a very attractive manner. The same architect made drawings for a three-story residence; to be built on St. James place. It will have a stone front, stained, plate and beveled glass, electric light, etc. For Dr. C. A. David, at Rogers Park; two two-story frame residences; to have brick and stone basement, sanitary improvements, furnaces, etc.

Architect J. N. Tilton is preparing plans for an Episcopal church, to be erected at Austin. It will be constructed of Bedford stone, have a red tile roof, cypress interior finish, stained glass windows, probably electric light; have seating capacity for four hundred persons. The size will be 50 by 100 feet and the cost $25,000. He also made plans for a pretty two-story basement and attic residence; to be erected at La Grange, for P. S. Eustis. To be of stone first story and above of frame, all the improvements, electric light, furnace, etc.; cost $7,000.

Architect D. A. Lapointe: For Augusta Mueller, on Emerson avenue near Hoyne, a two-story stone front flat building. For the same owner on Ogden avenue near Taylor street, a three-story store and flat building, 48 by 65 feet; to be of stone front, have steel store fronts, gravel roof, sanitary plumbing, steam heat; cost $15,000. For S. Greenbaum, on Washington boulevard, a four-story apartment house; to have a frontage of 209 feet, and cost about $100,000; to be of pressed brick and stone, with gravel roof, steam heat, electric light, marble and tile work and all the improvements.

Architect George Beaumont: For W. H. Chadwick, on the corner of Belmont and Evanston avenues, two three-story residences; to have stone fronts, tile and gravel roofs, hardwood finish, electric light, steam heating; cost, $18,000. For W. H. Butterfield, on Michigan avenue court south of Twenty-second street, a one-story storage, 70 by 75 feet; to be of brick. For the same owner, corner of Twenty-second and Michigan avenue, a six-story store and office building, 85 by 62 feet in size; to cost about $70,000; pressed brick and stone front, gravel roof, steam heat, elevators, electric light, marble tile and mosaic work, and the best of sanitary plumbing.

Architects Stiles & Stone: For M. S. Bradley, on Washington avenue near Fifty-third street, a four-story and basement apartment house, 41 by 75 feet in size; to be of stone front, have gravel roof, steam heat, electric light, marble entrance, etc.; cost $20,000. For Mrs. S. B. Reed, on Monroe avenue near Fifty-fourth street, two two-story and basement residences; to have pressed brick and stone fronts; cost $10,000. For H. W. Wolseley, on Madison avenue near Fifty-fourth street, a two-story residence; to be of pressed brick and stone front, with slate roof; cost $6,000.

Architect W. S. Burrows: For J. G. Horne, at 2627 State street, a four-story and basement store and flat building; to be of pressed brick and stone; cost $12,000.

Architect W. L. Carroll: For Mrs. Barnes, at 32 College place, a two-story flat building; of stone front, gravel roof, hardwood finish, sanitary plumbing, steam heat, etc.

Architect Alfred Smith: For F. H. Brown, at 3731 to 3733 Langley avenue, a four-story flat building, 40 by 70 feet; to cost about $20,000; to be of stone for the first two stories, and above of pressed brick and stone, gravel roof, all sanitary improvements, steam heat, electric light, etc. For Mrs. Semyard, at 1132 Wilcox avenue, a three-story and basement flat building, of pressed brick and stone front.

Architect J. E. O. Pridmore: For Mrs. L. A. Clark, a three-story and basement residence; to have a stone front, hardwood interior, steam heat and all the improvements; to be erected on Oakenwald avenue near Forty-sixth street.

Architect W. J. Van Keuren: For J. E. Decker, at Austin, a three-story store and flat building of pressed brick and stone front, electric light, etc.; cost $15,000. For Messrs. Pellet & Herrick, at Oak Park, a two-story flat building, to have a front of pressed brick and stone.

Architect Oscar Cobb: For A. B. Yeomans and H. Choate, at Winona, Minnesota, a three-story theater, 75 by 120; to cost $50,000; pressed brick and stone, tin roof, electric light, steam heat, etc.; the seating capacity will be 1,200. For Judge Charles V. Bareteer, at Wausau, Wisconsin, a two-story building, first story to be stores and above Masonic temple; pressed brick and stone front, gravel roof, electric light, steam heat; size 63 by 84 feet; cost about $20,000. For James McCrossen, at Wausau, a two-story business block, 40 by 60, to be of pressed brick and stone, have gravel roof, steam heat, electric light, etc.

Architect W. R. Gibb: For Mrs. A. Charles, at 840 Congress street, a three-story and basement flat building, of pressed brick and stone front, gravel roof, etc. For M. Chatroop, on Wieland street, near North avenue, a three-story and basement flat building; to have a front of pressed brick and stone, gravel roof, sanitary plumbing, etc.

Architect H. B. Wheelock: For Charles S. Hurley, on Evans avenue, near Forty-eighth street, a two-story flat building, of stone front. For Prof. J. Slocum, at Hyde Park, a two-story residence of frame, with stone basement, hardwood interior; cost $7,000.

Architects Hetherington & Warner: For S. Blain, on Oakenwald avenue, near Forty-fifth street, a three-story double flat building; to have a stone front, gravel roof, steam heat, hardwood finish, electric light, bells, speaking tubes, etc.; cost $20,000.

Architect J. M. Van Osdell: For Mr. McShane, of Omaha, remodeling and additions to Exchange building on Van Buren street; the large halls in the court on the south will be ripped out and another building, 40 by 50 feet in size, seven stories and basement, made to connect with the present building, leaving a court 30 by 50 feet; the present attic story on the old part will be remodeled and a full story made out of it; the elevators will be removed from their present position and placed over in the Van Buren street entrance; the cost of this improvement will be $50,000. For Charles A. Street, at La Grange, a two-story and attic artistic cottage, cut stone basement, hardwood finish, electric light, furnace, etc. He is also preparing plans for the Centennial Baptist Church, to be erected on the southeast corner of Jackson boulevard and Lincoln street; to be constructed of Indiana brownstone all round with slate roof, red oak finish, mosaic vestibules, beautiful stained glass windows, steam heat, etc.

Architects Hallstrom & Peterson: For Andrew Hultin, on Wellington street, near Halsted, a two-story flat building of pressed brick and stone, all the sanitary improvements, hardwood trimmings, two furnaces, etc. For John A. Modin, corner of Belmont and Sheffield avenues, a block of five four-story stores and flats; to cost $40,000; pressed brick and stone fronts, galvanized iron bays, the latest sanitary improvements; the building will have a frontage of 125 feet. For F. Peterson, at 57 Locust street, a four-story flat building, 25 by 90 feet; to cost $13,000; the front will be of pressed brick and stone, with galvanized iron bays and cornices; all the sanitary improvements will be put in.

Architect C. H. McAfee: For the Douglas Park Club, a three-story clubhouse, 40 by 100 feet in size, of pressed brick and stone front, etc. For C. F. Drake, on Paulina and Sixty-third street, a two-story factory; 49 by 180 feet; of pressed brick and iron front.

Architects Ostling Bros.: For Mr. Skoglof, at 1732 Fletcher street, a three-story and basement flat building; to have a stone front, and cost $14,000. For H. Henderson, on Mayfair street, a two-story flat building of stone front; to cost $8,000. For C. Johnson, at 104 Townsend street, a four-story flat building, of stone front, gravel roof, slate mansard, etc.; to cost $16,000.

Architect L. G. Hallberg: For J. V. Clark, at 69 to 71 Pine street, a three-story addition; to cost $15,000. For R. S. Edler at 111, 113 and 115 Sedgwick street, a five-story apartment house, 75 by 123 feet in size; to cost $75,000. The first story will be of stone, and above of pressed brick and stone.

Architect F. Foehringer: For R. Gannon, on Van Buren street, near Center avenue, a four-story store and flat building; to have a stone front, gravel roof, etc.; cost $10,000. For Henry Rumsfeld, corner of Sedgwick and Oak streets, raising and remodeling building; and on the same property a five-story and basement store and flat building; of pressed brick and stone; the cost of the whole improvement being $25,000.

Architects Patton & Fisher: For J. H. Howard, on Kimbark avenue, a two-story residence; first story to be of stone, second red tile, and roof of Spanish tile; cost $14,000. For W. F. Furbeck, at Oak Park, a two-story residence; to be constructed of stone and frame; cost $18,000. For P. D. Armour, on Thirty-third and Dearborn streets, one-story addition to flat building; to cost about $80,000. They have also finished drawings for a two-story high school to be erected at Muskegon, Michigan; to be of pressed brick and stone; cost $50,000.

Architect Henry Ives Cobb: For Messrs. Huck & Young, corner of Harrison street, Blue Island avenue and Halsted street, a seven-story store and office building; to have two fronts 125 and 144 feet; it will be constructed of pressed brick and terra cotta; will be of fireproof construction; cost about $200,000. Also making plans for the Indiana State building to be erected at the World's Fair; it will have stone towers and the rest of the building will be of staff; cost $50,000.

NOTE.—Henry Ives Cobb will remove to the Chicago Title and Trust Company's building on Washington street, near Clark. He has leased the whole of the sixteenth story and will have it arranged in the most convenient way to suit his extensive business.

Architects Kley & Lang: For Henry Hoepe, corner of Robey and Thomas streets, a double three-story and basement flat building, of buff Bedford stone front, with galvanized iron bays, stained and plate glass and all improvements; cost $15,000. For Richard Ealer, on Fullerton avenue near California avenue, a three-story store and flat building, of St. Louis pressed brick and stone. For J. W. Marwood, at Kolzi, Ill., a frame store and flat building, 26 by 80, to cost $6,000. For Henry Dreves, on Division street near Western avenue, a three-story store and flat building, of St. Louis pressed brick front. For Woerner Spengler, on Ellis court, a two-story basement and attic residence, to cost about $10,000; the front will be of St. Louis pressed brick with Connecticut brownstone trimmings, slate roof, etc. For the same owner, corner of North and Hoyne avenues, a three-story store and flat building, of pressed brick and stone; to cost $13,000. For G. Mengerson, on California and Lexington avenues, a three-story store and flat building, of buff Bedford stone front, galvanized iron bays and tower, sanitary plumbing; cost $14,000.

Architects Adler & Sullivan have completed drawings for the seven-story warehouse to be erected on the southwest corner of Van Buren and Franklin streets, for the M. A. Meyer estate; it will be built of terra cotta; have elevators, electric light, etc.; size 120 by 168 feet.

Architect S. S. Beman has just let the contract for the foundations for the North-Western Pharmaceutical and Medical College, to be erected on Dearborn street between Twenty-fourth and Twenty-fifth streets; it will be a five-story structure, 106 by 106 feet in size; of stone, terra cotta and pressed brick, gravel roof, steam heat, electric light, have all the modern conveniences and cost about $100,000.

Architect Simeon B. Eisendratb: For L. Endres, on the northwest corner of Fifty-sixth street and Drexel avenue, a three-story apartment house, 48 by 65 feet, to cost $13,000; the front will be of buff Bedford stone and the side of pressed brick, the interior being finished in cypress. For B. D. Eisendrath & Co., at Racine, Wisconsin, a five-story factory, 40 by 200 feet in size; a one-story building 150 by 200 feet, to be of brick and cost about $30,000. The same architect is getting out drawings for a terra cotta works, main building to be 50 by 150 feet in size, three stories high, engine and boiler house, etc., to be erected at Ottawa, Illinois.

Architects Thomas & Rapp: For Wilkinson estate, corner of Twenty-first street and Wabash avenue, a four-story store and flat building, 73 by 170 feet in size, to cost $70,000; to be of pressed brick and stone front, have steam heat, electric light and the best of modern and sanitary improvements. For F. F. Stevens, on Forty-seventh street near Evans avenue, a four-story store and flat building, 50 by 65 feet; to be of pressed brick and stone front and cost $18,000. For the McKey estate, on State street near Twentieth street, a four-story store and flat building, 72 by 87 feet in size; to be constructed of pressed brick and stone, have gravel roof, etc., and cost $30,000.

Architect Francis J. Norton: For John H. Park, at Forty-third street and Wabash avenue, a three-story flat building, to have a stone front and cost $10,000.

Architect Clinton J. Warren: For P. D. Armour, Jr., a three-story residence on the southwest corner of Michigan avenue and Thirty-seventh street; to be of Connecticut brownstone all round, have red tile roof, electric light, hot water heating; cost $150,000. Also making plans for a ten-story hotel, 114 by 172 feet in size; to be erected corner of Michigan avenue and Congress street, for William Fitzgerald; to be of pressed brick, stone, terra cotta, have steam heat, elevators, electric light, etc.; cost about $700,000.

Architects I. K. and A. B. Pond will remove into a commodious suite of offices on the thirteenth floor of the Venetian building.

Architect Francis M. Whitehouse: For H. C. Taylor, on State street near Lincoln park, a three-story residence; to cost $100,000. For the same owner, a block of four-story residences, of pressed brick and Bedford stone, on Prairie avenue near Twenty-second street. For S. Leonard Boyce, on Grand boulevard near Thirty-seventh street, a three-story and high roof residence, 40 by 65 feet, standing in 100 feet of ground; it is early English Gothic in type, and of very handsome design; also two-story stone stable to match. For M. S. Pierce, a three-story apartment house, 30 by 70 feet; to be of stone front, have hardwood finish, etc.; to be erected on Thirty-seventh street and South Park avenue. For Dudley Winston, at Lake Forest, a two-story and basement residence; it will be located on the side of a ravine, the two wings of the house standing at right angles with a semi-circular porch at junction of angles, with tall wooden columns extending to the top of the second story. He is also completing interior of a large stone residence at Oconomowoc, Wisconsin, for George Bullen. For Hobart Chatfield Taylor, on the northwest corner of State and North avenue, a three-story residence with basement and attic, house and stable covering 130 by 50 feet of ground; contracts are now being let and work will be commenced immediately.

Architect Francis J. Norton is letting contracts for a three-story residence, to be built at Forty-third and Wabash avenue, for Mr. Parks; the exterior will consist of Bedford stone, plate glass, cresting, copper cornice, composition roof, and a large front veranda; the interior will be furnished in oak, oil and plate glass, stationary mirrors, steam heat, and all sanitary and electric appliances;

estimated cost $8,000. Also for the Homestead Investment Company, plans for fifteen residences, to be erected at Grand Crossing; they will vary in plans and designs, and range in prices from $2,000 to $4,000, and all sanitary and modern improvements. For Mr. Greenwood, a stone residence building, 25 by 80 feet, to be erected at Forty-seventh and Ashland avenue; it will be built of iron, stone and hardwood, gas, bath and all modern improvements; estimated cost $6,000. For Mr. Hisgen, a double stone and apartment building, 40 by 80 feet, to be built at Sixty-ninth and Wentworth avenue; it will have iron, stone, copper, and plate-glass front, with composition roof; interior will be furnished in hardwood, oil finish, stationary mirrors, and all electric, sanitary and modern improvements; estimated cost $12,000.

Architect A. Druiding has the following plans of Catholic churches on the boards: St. Augustine's Church, Austin, Mower County, Minnesota, Rev. D. Sullivan, pastor; the church to be Gothic in style, to be 74 by 170 feet; two towers, one having a height of 170 feet, the other a height of 126 feet; to be built of local brick with stone trimming; the interior will have a richly groined ceiling, partly supported by fourteen columns; the building to cost $60,000. St. Joseph's Church, Lucinda, Clarion County, Pennsylvania, Rev. Edward Hasse, pastor; is to be 148 by 51 feet, with a transept 66 feet wide, tower in center of front 140 feet high; built in brick with stone trimming; to cost $25,000. Catholic church, Algona, Kossuth County, Iowa, Rev. Mr. Nichols, pastor; to be a frame church, 45 by 105 feet, with tower 105 feet high; to cost $18,000. St. Michael's Church, Wheaton, DuPage County, Illinois, Rev. W. de la Porte, pastor; will be 50 by 100 feet, with tower on corner to be 90 feet high; the exterior of church will be of Bedford stone; the interior will be finished in oak; the church will be in the Romanesque style of architecture.

Cincinnati, O.—Reported by Lawrence Mendenhall: The prospects, so apparently flattering, existing at the time of my last report, have changed. Every one thought that the questions of time and wages were settled for the season. The carpenters have proved to be balky horses, and unless an understanding is arrived at, a strike with its disastrous results is a certainty. The contractors have made a fair and reasonable proposition of thirty cents per hour, but this has been rejected. Shakespeare aptly says in "A Winter's Tale" as regards obstinacy:

> "You may as well,
> Forbid the sea to obey the moon,
> As, or by oath, remove or counsel shake
> The fabric of his folly."

The Congress of Builders has the matter in hand, and will try to settle the knotty question.

Architect J. W. McLaughlin has prepared plans for Mr. Timothy Hayes, for a theater and cafe; size 90 by 100, four stories high; materials: pressed brick, stone trimmings, gas, plumbing, stained glass, tiling, scenery, chairs, tin roof, etc.; cost $30,000.

Architect A. O. Elzner has the plans in hand for a Jewish club house; materials: pressed brick, terra cotta, hardwood, tiling, fireproofing, lavatories, plumbing, mantels, furnace, etc.; cost $50,000.

Architects Crapsey & Brown have drawn plans for I. O. O. F. hall at Ironton, Ohio; materials: pressed brick, iron, slate roof, steam heat, scenery, stained glass, electric lighting; cost $20,000.

Architect J. J. Rueckert has prepared plans for a tannery for C. Bardes' Sons; materials: brick, gas, plumbing, iron, tin roof, steam heat; cost $10,000.

Architects Bofinger & Hopkins report: For Mr. E. J. Krehbiel, a residence; materials: frame, slate roof, gas, plumbing, stained glass, grates, mantels, furnace, etc.; cost $4,500.

Architect J. G. Steinkamp has prepared plans for a flat building for Hon. Edward A. Ferguson; materials: pressed brick, stone trimmings, tin roof, blinds, gas fixtures, grates, wood mantels, plumbing, etc.: cost $15,000.

Architect Adam J. Bart has drawn plans for Mr. Benjamin Knopp; materials: frame, slate roof, pine finish, grates, mantels, stained glass, etc.; cost $4,500.

Architect W. W. Frauklin reports: For Mr. P. Nelson, a dwelling; materials: frame, stone foundations, gas, plumbing, plate and stained glass, grates, etc.; cost $4,500. Also plans for Henry Pogue, Esq., of H. & S. Pogue, for a brick dwelling; materials: pressed brick, slate roof, furnace, grates, pine finish, gas, plumbing, stained glass, etc.; cost $5,000.

Architects Kuhlman & Decamp report: For J. J. Moore, Seventh and Race streets, a residence; materials: frame, slate roof, blinds, gas, plumbing, stained glass, etc.; cost $3,500.

Architect George W. Rapp has drawn plans for remodeling a restaurant; materials: brick, iron, plumbing, gas, electric light, tiling, steam heat, etc.; cost $10,000.

Architects Samuel Hannaford & Sons report: For Mr. L. B. Harrison, a store building, six stories high; materials: pressed brick, stone trimmings, iron, elevators, gas, steam heat, etc.; cost $45,000. Also at the town of Wilmington, Ohio, under their supervision, will be erected a model opera house; the lower part will be used for municipal purposes; materials: pressed brick, tin and slate roof, steam heat, scenery, chairs, etc.; cost to remodel, about $15,000.

Architect Emil G. Rueckert has plans for G. H. Stiretman for two residences; materials: frame, slate roof, gas, stained glass, grates, wood mantels, plumbing, etc.; cost $7,500.

Cleveland, Ohio.—Architect Joseph Daniels: For the Homeopathic Hospital College Society, a four-story college hospital; size 35 by 72 feet; brick and stone; to cost $35,600.

Architect C. F. Schweinfurth: For Arnold Saunders, a three-story brick dwelling; size 34 by 55 feet; cost $30,000; and a two-story frame barn, 38 by 45 feet; to cost $5,000. For H. W. Osborne, a two-story frame dwelling; size 38 by 48 feet; cost $5,000.

Architect A. M. Smith: For Florence Harkness, a three-story "Lend-a-Hand" Mission; size 52 by 64 feet; brick; cost $18,500.

Architects Coburn & Barnum: For the Western Reserve University, a two-story frame dwelling; size 37 by 56 feet; cost $7,500.

Architect Ed Schwabe: For E. J. Siller, a two-story frame dwelling; size 52 by 30 feet; cost $6,000.

Architect George F. Hammond: For the Electric Power Company, a smoke stack building; size 14 by 14 feet; brick; to cost $8,400.

Architect Clarence O. Arey: For J. J. Tracey, a five-story store; size 47 by 72 feet; brick and terra cotta; to cost $60,000.

Architect's name not reported: For the Bradley estate, a three-story store and apartment building; size 48 by 98 feet; to cost $15,000; McMillan and Collester, contractors. For Moritz Goodman, a three-story store and tenement building; to cost $10,200. For G. C. Julier, two-story frame residence; size 38 by 45 feet; to cost $10,000; Robbins and Park, contractors. For Mrs. Beemis, a three-story brick store and printing office; size 70 by 65 feet; cost $9,000. For Schneider and Trenkamp, a brick foundry building; size 66 by 94 feet; cost $5,000.

14	permits	granted	in	March,	1892,	store and block. $191,550
222	"	"	"	"	"	frame..... 279,410
214	"	"	"	"	"	alterations 69,624
450	"	"	"	"	"	total $540,584

Denver, Colo.—Architect A. M. Stuckert: For S. Court, a two-story brick residence, size 42 by 50 feet; to cost $6,000.

Architect F. Goodnow: For C. A. Booth, a three-story residence, size 72 by 43 feet; brick and stone; to cost $10,000.

Detroit, Mich.—Architects Donaldson & Meier: For Art Stove Company, a four-story brick manufacturing building, size 50 by 100 feet, to be built on the west side of Russell street near Milwaukee; cost $10,000. For St. John R. C. society, Monroe, Mich., a new brick church; to cost $10,000.

Architect A. T. Wiley: For J. E. Farley, a two-story brick residence, slate roof; cost $10,000.

Architects Mason and Rice: For the Belle Isle Park Commissioners, a police station house; to cost $10,000. For James H. McMillan, a two and one-half story brick and stone residence, on corner of Jefferson avenue and Dubois street; cost $35,000.

Architect W. E. Brown has plans for the Beckwith Memorial Opera House, at Dowagiac, Mich.; cost $50,000.

Architect G. W. Myer: For James Robinson, a two and one-half story brick residence; to cost $7,500.

Architect A. C. Varney: For J. E. Wells, Syracuse, N. Y., a two-story frame residence; cost $8,000. For A. H. Piper, a double two-story brick residence; to cost $7,000.

Architects Malcombson & Higginbotham: For the Board of Education, a brick school house, size 132 by 82 feet; cost $30,000. Also a twelve-room brick school house, on Concord avenue, size 120 by 92 feet; cost $30,000. For E. H. Harvey, seven two-story frame dwellings; to cost $14,000. For August J. Loeffler, a two-story brick store at Wyandotte, Mich.; cost $6,000.

Architect Harry J. Rill: For Julius Kegel, a two-story double brick residence; cost $7,000.

Architect A. E. French: For Henry Williams, a two and one-half story brick residence; cost $10,000.

Architect E. C. Van Leyen: For J. E. Anderson, a three-story frame hotel, Mt Clemens, Mich., size 40 by 70 feet; cost $9,000. For Wm. Cottrell, a two-story frame residence, Mt. Clemens, Mich., size 44 by 60 feet; cost $12,000. For Messrs. Yerkes & Gorton, a two-story frame residence; cost $5,000.

Architect H. A. Brady: For C. W. H. Potter, a two-story block residence flats; to cost $6,000

Architect A. G. Mattssen: For James E. Scripps, a two-story brick building, size 85 by 125 feet; cost $19,000.

Architects Rogers & McFarland: For Fred O. Paige, a two-story brick residence; cost $6,000. For Power's Wayne County Creamery, a three-story cold storage warehouse, at Milwaukee Junction; cost $5,000.

Architects A. E. Walshe & Son: For Frank Hildebrant, a three-story brick store and residence flat; cost $9,000.

Architects M. L. Smith & Son: For Thomas Barlum, a three-story store and flat building; to cost $30,000.

Joliet, Ill.—Architect H. Boehme reports the following: Remodeling St. Patrick's church; cost $5,000. Residence for James O'Gorman; $5,000. Residence for W. M. Cochran; cost $7,500. A double store building for James Burke; to cost $7,000. A large store building for Henry Rocka; to cost $6,000.

Louisville, Ky.—Architects McDonald Bros.: Residence for J. W. Green, Third near Weissenger avenue; to cost $9,500. Brick and redstone trimmings, slate roof; three stories in height. Alterations of residence for C. M. Garth, Esq., Third near Oak streets; to cost $3,500; to have metal roof. Warehouse for Bell, of Nelson Distilling Company; to be frame, covered with corrugated iron, 10,000 barrels capacity. Dwelling for Mr. Herndon, Owington, Kentucky; cost $7,000; brick and stone, slate roof.

Architects Drach & Thomas: Residence, J. B. Pirtle, Esq.; First near Ormsby avenue; brick and stone, metal roof; to cost $6,000; three stories; contract let. For W. A. Hass, residence; brick and stone, slate roof; cost $7,500; location Garvin place. Storehouse and flats for Mrs. Mary S. Jones; to cost $9,000; on Market and Chapel streets; to be of brick and stone, iron front. Block of residences for Messrs. J. and L. Barkhouse, Second and Ormsby avenues; to cost $24,000; to be of brick and stone, slate roof. Double residence for Mr. P. C. Brecher, Twenty-third and Jefferson streets; to cost $7,000; brick and stone, metal roof. Alterations for Mr. J. W. Sprague, addition to residence; to cost $2,600; Fourth near Kentucky streets. Office for Doctor Brzozowski; to be of frame; to cost $1,800; Jefferson and Handcock streets.

Architects Clarke & Loomis: The Louisville Medical College, northwest corner First and Chestnut streets; to cost $90,000; size 86 by 184 feet; to be four stories, tower 112 feet in height; to have two amphitheater lecture halls; exterior to be of Bedford stone. Store building for Messrs. Levy Bros., northeast corner Third and Market streets; to cost $67,000; to be five stories, having tower; to be of Roman brick, redstone and terra cotta trimmings, with asphalt roof. Residence for Mr. Theo. Conrad, St. James court; to cost $35,000; exterior wall Bedford stone, slate roof; to be three stories in height. Residence for Mr. S. S. Meddis, Third near Burnett avenue: to cost $16,000; to be three stories, brick, redstone trimmings, with slate roof. Three dwellings for Protestant Episcopal Orphan's Home, Morton avenue and Edwards street; to cost $15,000; brick and stone trimmings, metal roof; to be two and one-half stories. Residence for Messrs. G. W. Conway, Third near Ormsby avenue; cost $18,000; freestone front and trimmings, slate roof; to be three stories high. Workshop for Louisville Industrial School of Reform; brick, with stone trimmings, metal roof; to cost $15,000; location Third and G streets. Residence for Judge John Roberts, Ormsby avenue near Twenty-second street; to cost $7,000; brick, with stone and terra cotta trimmings; slate roof, to be three stories. Brick tenement houses for Mr. Joseph Dunlap; to be two stories; cost $4,000; location Twelfth and Congress streets. Residence for A. M. Dick, Esq., with stone and terra cotta trimmings, metal roof, three stories; to cost $9,000; location Second near Oak street. Residence for Mr. Lawson Woolridge; to cost $5,000; located on Broadway near Thirteenth street; brick, stone trimmings, metal roof; three stories. Store building for J. W. E. Bayly, four stories and cellar, iron front, metal roof; cost $15,000; location 635 West Main street; size 22½ by 180 feet. Store building for Monk's Estate, three stories and cellar, iron front, metal roof; cost $12,000; location 639 West Main street; size 19½ by 180 feet. Store building for C. W. McCord; size 22½ by 180 feet; four stories and cellar, stone front, metal roof; cost $13,000; location 631 West Main street. Store building for B. J. Clay; four stories and cellar, iron front, metal roof; cost $20,000; location 517 West Main street; size 22½ by 180 feet.

Pittsburgh, Pa.—Architect Frank Irving Cooper: For James S. Ramsey, a brick dwelling-house; contract not let. For Central School Board, New Brighton, Pennsylvania, a brick and stone school building; contractor, George Krurger.

Architect J. P. Brennan: For J. J. Flannery, a two-story brick residence; to cost $15,000. For the Little Sisters of the Poor, a two-story brick chapel; cost $20,000.

Architect J. P. Bailey: For the Presbyterian church at Chillicothe, Ohio, a two-story stone church; to cost about $55,000.

Springfield, Ill.—Architect George H. Helmle: For S. W. Currier, two-story brick and stone store and flat; 40 by 70 feet; cost $7,000. For Franz Bode, remodeling frame residence; cost $3,500. For LaFayette Irwin, two-story brick, and stone dwelling; 36 by 50 feet, ten rooms; cost $4,000. For N. D. Ricks, Taylorville, Ill.; two-story frame dwelling, nine rooms; 36 by 50 feet; cost $5,000.

St. Louis, Mo.—Architect J. B. Legg: For the Daughters of the Confederacy, a Confederate home at Higginsville; the building will be 90 by 106 feet, two stories, and cost about $35,000.

Architects Barnett & Haynes: For A. P. Ghio, a two-story store and flat building, size 70 by 150 feet; brick and stone foundations; cost $33,000. For Mrs. Clara S. Collins, a two-story residence; size 28 by 50 feet; brick, with stone trimmings; cost $15,000.

Architect L. B. Blackwood: For Mr. Ayers, a two-story residence; size 49 by 28 feet; brick and stone; cost $5,600.

St. Paul, Minn.—Architect Albert Tschocke reports plans for an apartment house to be erected on College avenue, for the Messrs. Owen; it will be of brownstone in the style of the Italian Renaissance, six stories in height and absolutely fireproof; no wood will be used except in doors and interior finish; the building will have 170 feet frontage on College avenue and will extend back 240 feet; there will be about twenty flats on each floor in four to six-room suites, with baths and all modern conveniences; a handsome gymnasium with a swimming bath, will be a feature of the building; the cost will be about $500,000.

Clarence B. Gardiner has let the contract for an apartment house on Forbes street, just off west Seventh street; it will be four stories high, brown Bayfield stone and pressed brick, and 100 by 80 feet in dimensions; all modern improvements; the building will be ready for occupancy by September 1, 1892, and will cost about $50,000.

Architect C. A. Wallingford is drawing plans for three houses for Frederick S. Bryant, on Crocus hill; to be constructed of brown, Portage entry and Bedford stone respectively; they will have natural wood finish and be of large size; The same architect is drawing plans for a four-story brown stone apartment building on College avenue, for D. Hortum, of Wisconsin; it will be finished in hardwood and the entrance will be of marble, with mosaic floors and wrought grille work above mahogany finish; cost about $19,500.

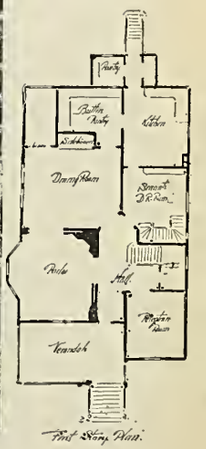
E. N. Saunders has bought 240 feet on Summit avenue, corner Virginia, for a residence; J. J. Parker the next 40 feet, and J. H. Allen the next 60 feet, for the same purpose; the property sold for $300 a front foot and some handsome houses will be erected.



A CHICAGO RESIDENCE.

Burnham & Root, Architects.





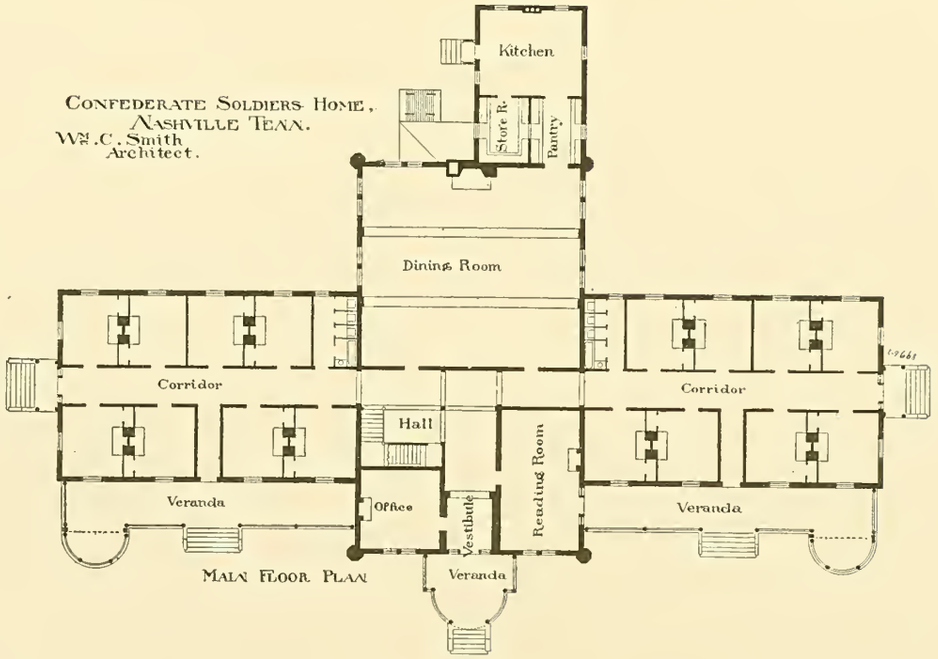
First Story Plan.

Inland Architect Press.

RESIDENCE OF PERRY TRUMBULL, EDGEWATER, CHICAGO.

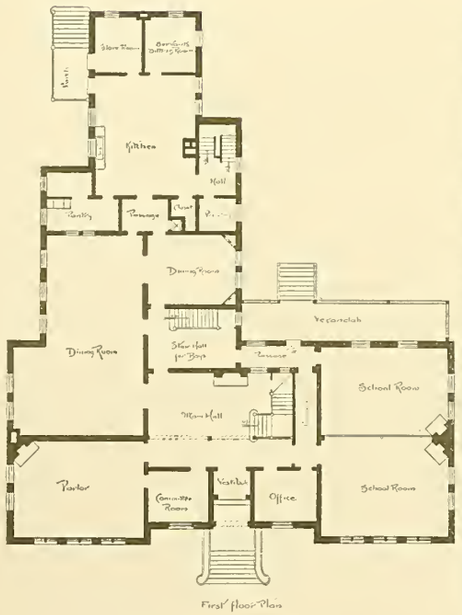
J. L. Silsbee, Architect.

CONFEDERATE SOLDIERS HOME,
NASHVILLE TENN.
Wm. C. Smith
Architect.



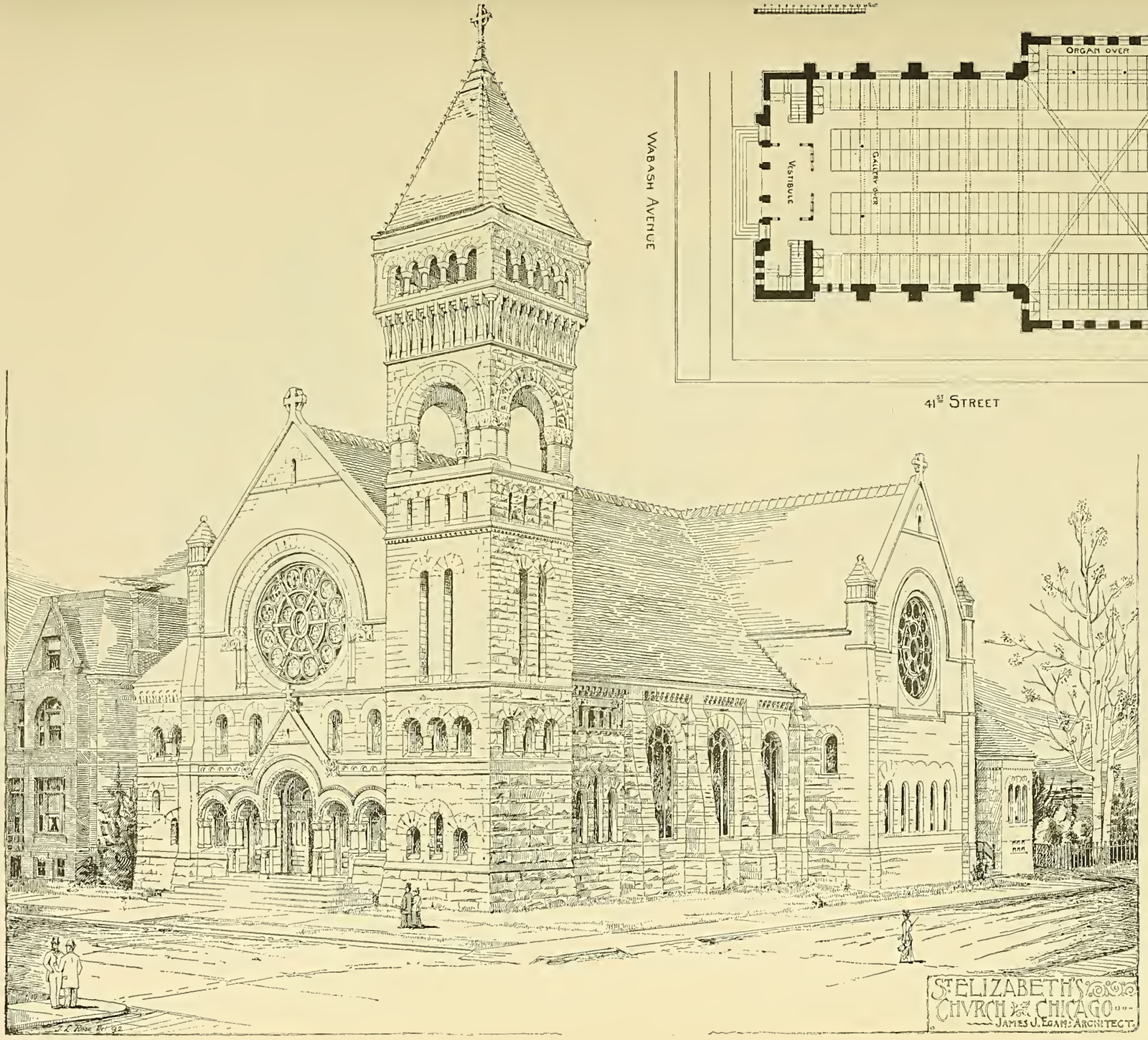
MAIN FLOOR PLAN

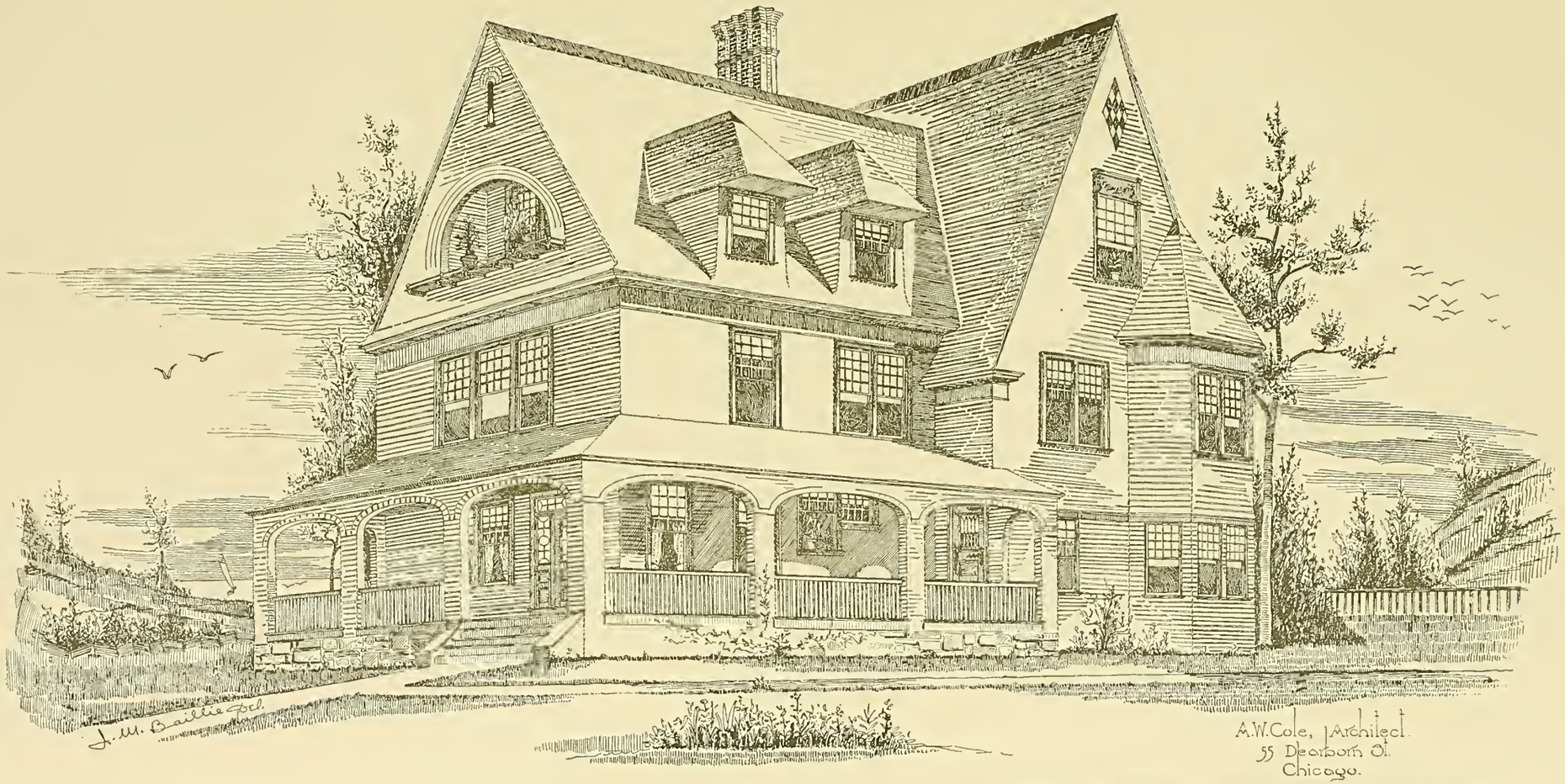




First floor Plan

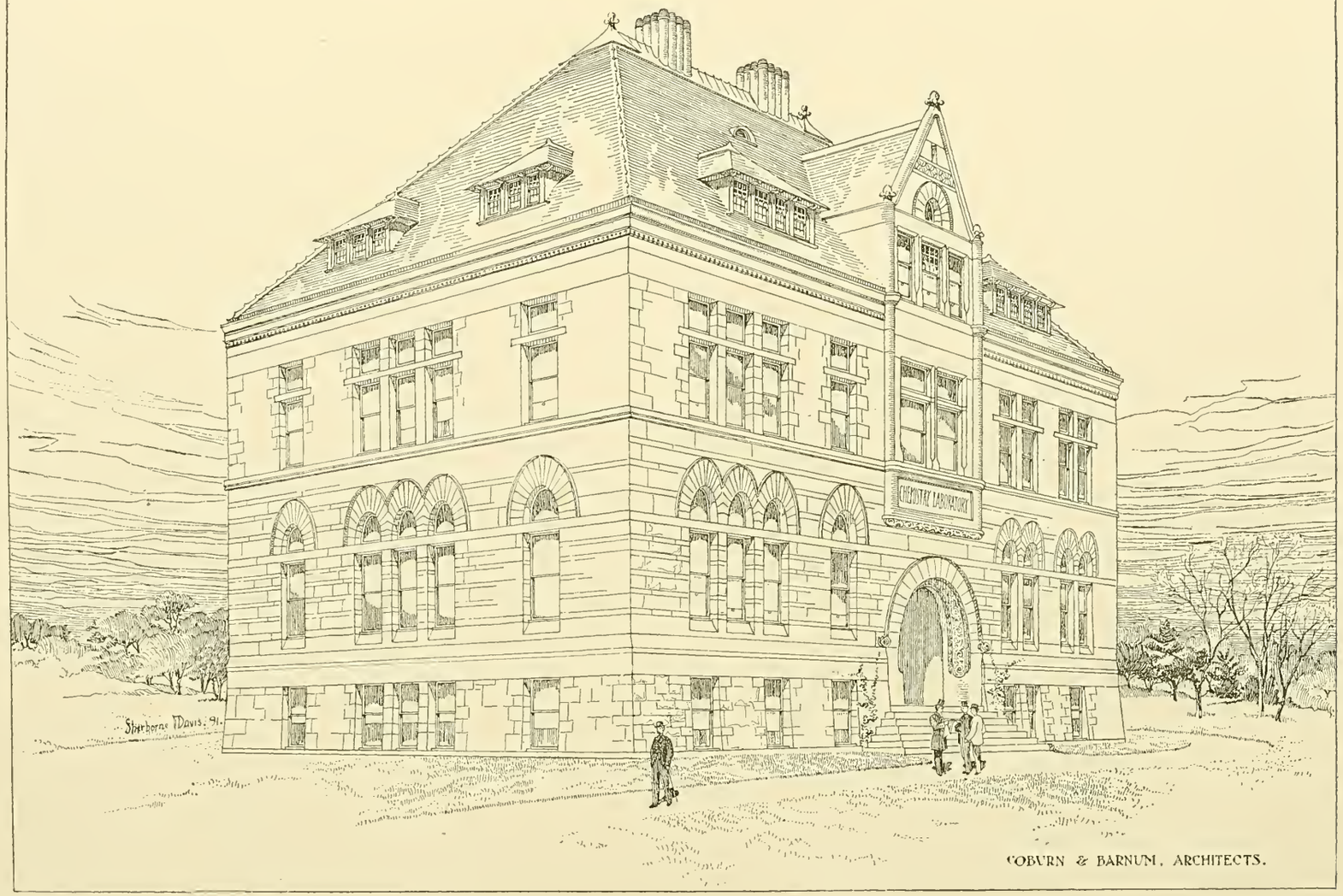
PROTESTANT ORPHAN ASYLUM BUILDING,
DETROIT, MICHIGAN.
JOHN SCOTT AND CO. ARCHITECTS.


Wabash Avenue
41st Street
Organ over
Vestry
Vestibule
Gallery over
Chapel
St. Elizabeth's Church Chicago
James J. Egan: Architect

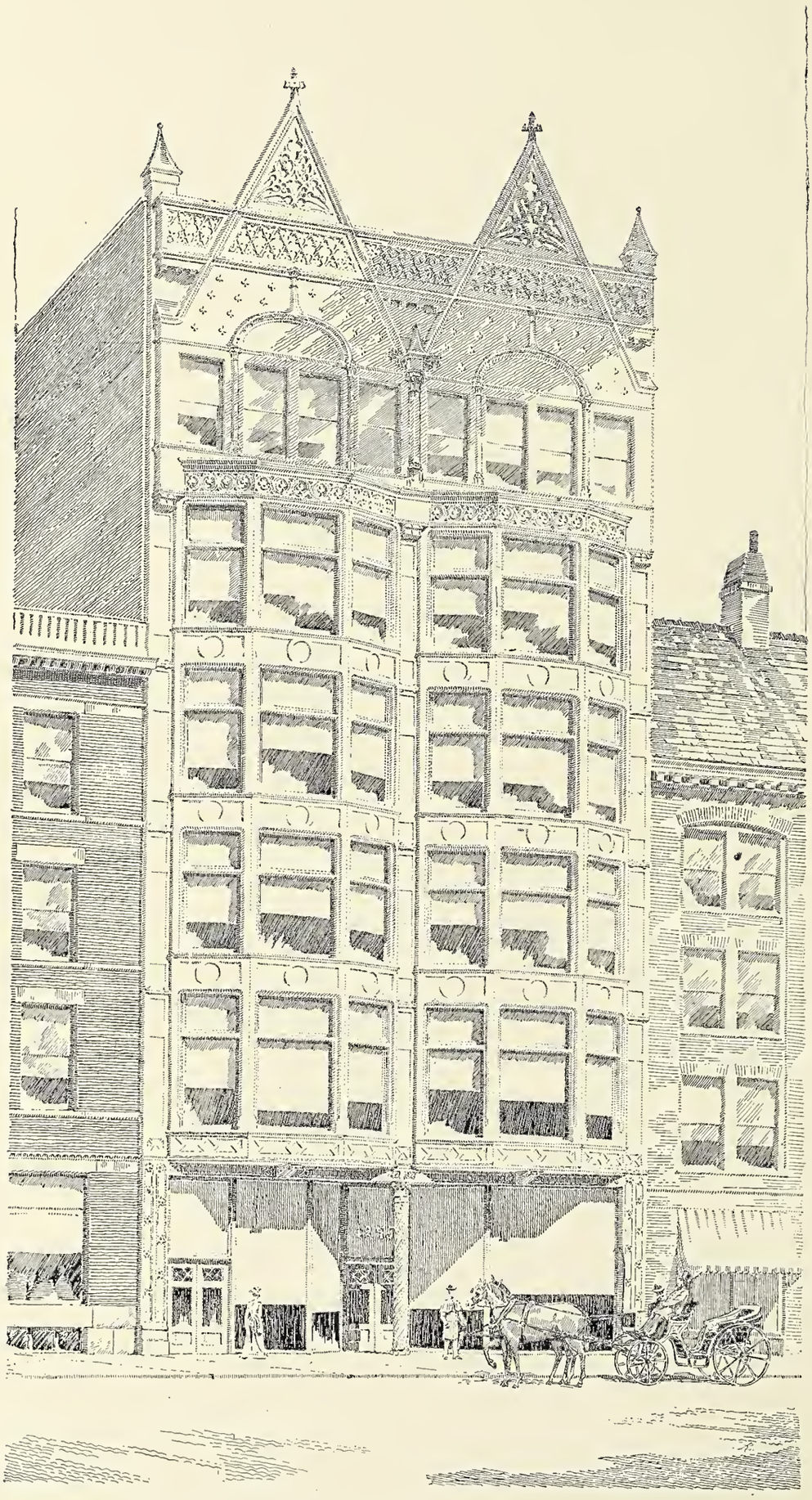


HOUSE · FOR · MRS. C.J. JUDD.
DWIGHT · ILL.

CHEMISTRY LABORATORY
FOR THE CASE SCHOOL OF APPLIED SCIENCE.,
CLEVELAND, O.



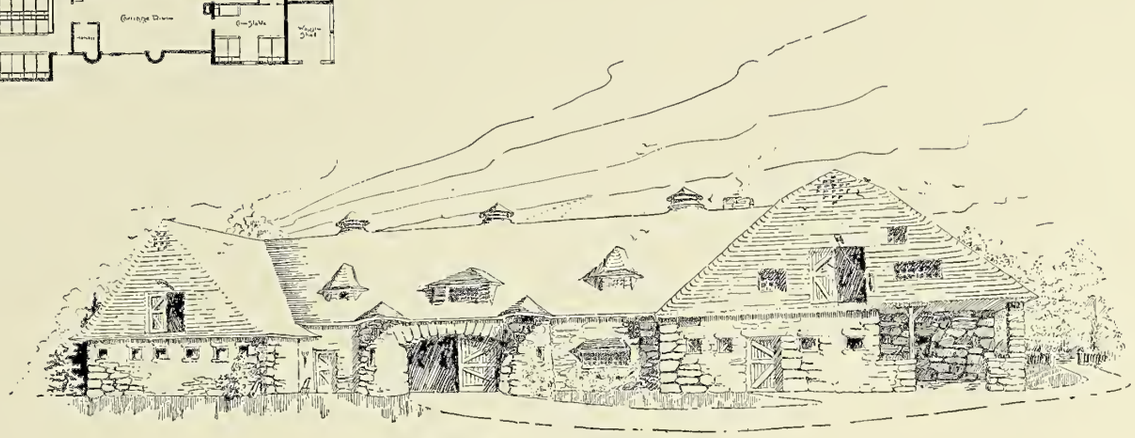
COBURN & BARNUM, ARCHITECTS.



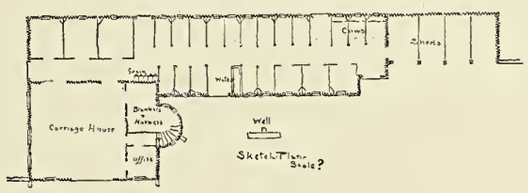
WAREHOUSE AND STORE BUILDING FOR CHAS. L. WILLOUGHBY, CHICAGO.

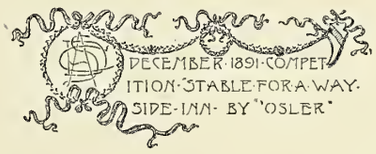
TREAT & FOLTZ, ARCHITECTS.

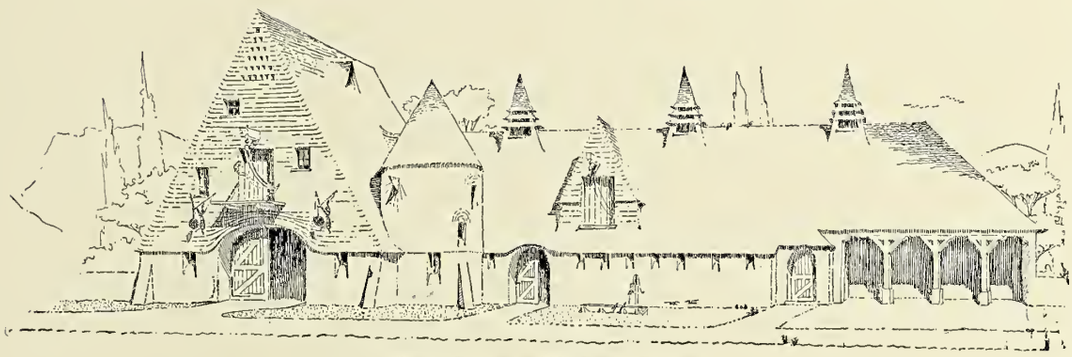




SUBMITTED BY D. R. HUNTINGTON.







FIRST PLACE — W. PELL PULIS.

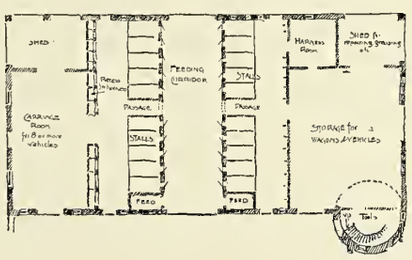
D.A.S.C. COMPETITION.-

SKETCH COMPOSITION of A STABLE
FOR
A COUNTRY-INN

DISCRIPTION:
THE STABLE is intended to be located in a hilly romantic country on the road leading to an old romantic town.
The Stable is planned according to conditions. - The stalls are so arranged that the horses can be fed from an large corridor, thus avoiding the scuffling of the stable small infamous stables, besides other inconveniences. The horses can be fed in the stalls loose by having a grille bar under in the usual way. There are exercises hooks behind each stall for the horses are also special harness room. A loaded hay wagon may drive into the main or feeding corridor and the hay may be hoisted up in the storeroom directly from the wagon. This corridor may be open to the roof or have a trap door - There will be several rooms for servants in upper part of stable besides the store room - ventilation will be received through openings in roof and windows.
A stable yard formed by two towers, next to the rear will be a bakery & stable yard with in the center of the court is a well and trough for the horses.

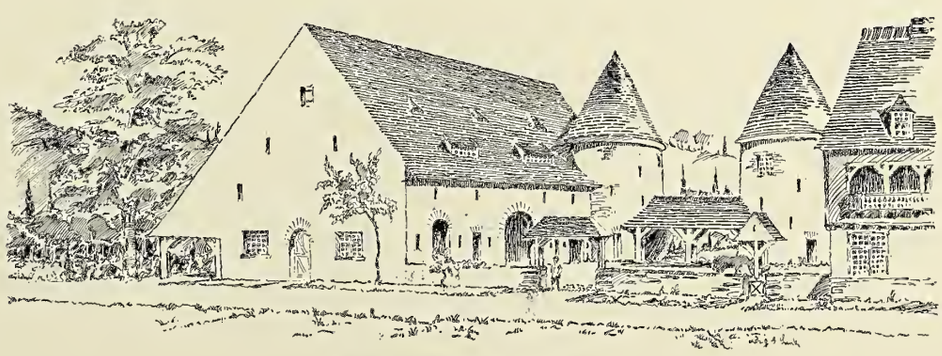
CONDITIONS: STABLE TO BE LARGE ENOUGH TO ACCOMODATE TWENTY HORSES AND TEN VEHICLES INCL. SHEDS ETC
STYLE, LOCATION, COST AND READERING ARBITRARY. SIZE OF SHEET 18 x 22.

SUBMITTED
BY
ROMEO.





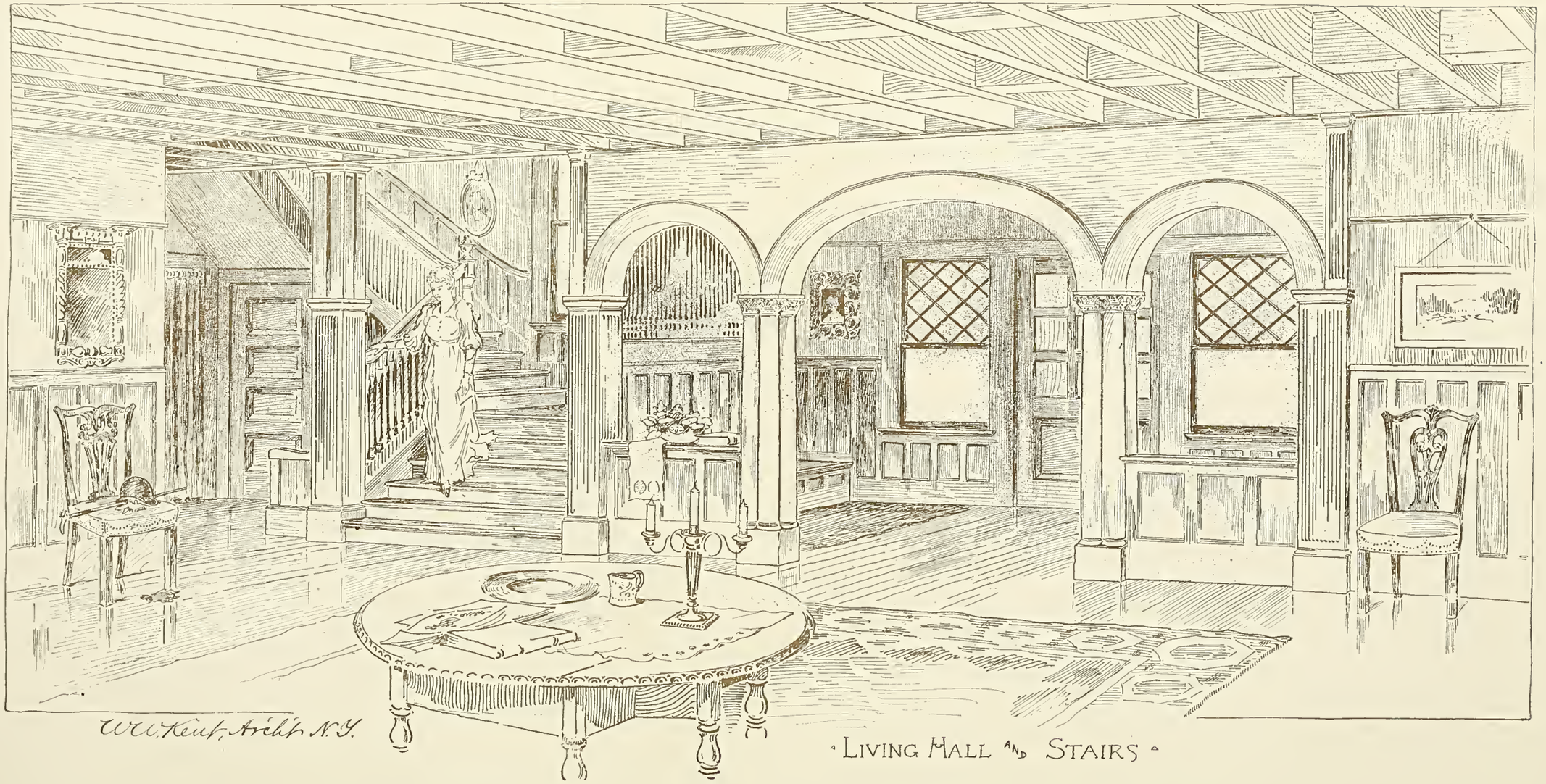
DISTILLERY
BOTTLING
WORKS
WHERE BEER AND WINE ARE MADE AND BOTTLED FOR USE ON A SMALL SCALE ONLY



MENTIONED — J. G. LINK.

DENVER ARCHITECTURAL SKETCH CLUB COMPETITION FOR A STABLE FOR A WAYSIDE INN.


CONGREGATIONAL
CHURCH AT
ASHLAND · O ·
COBURN & BARNUM ARCH'TS
CLEVELAND · O ·
W. D. BENES. DEL
JAN. 1896.



W. W. Kent, Archt. N.Y.

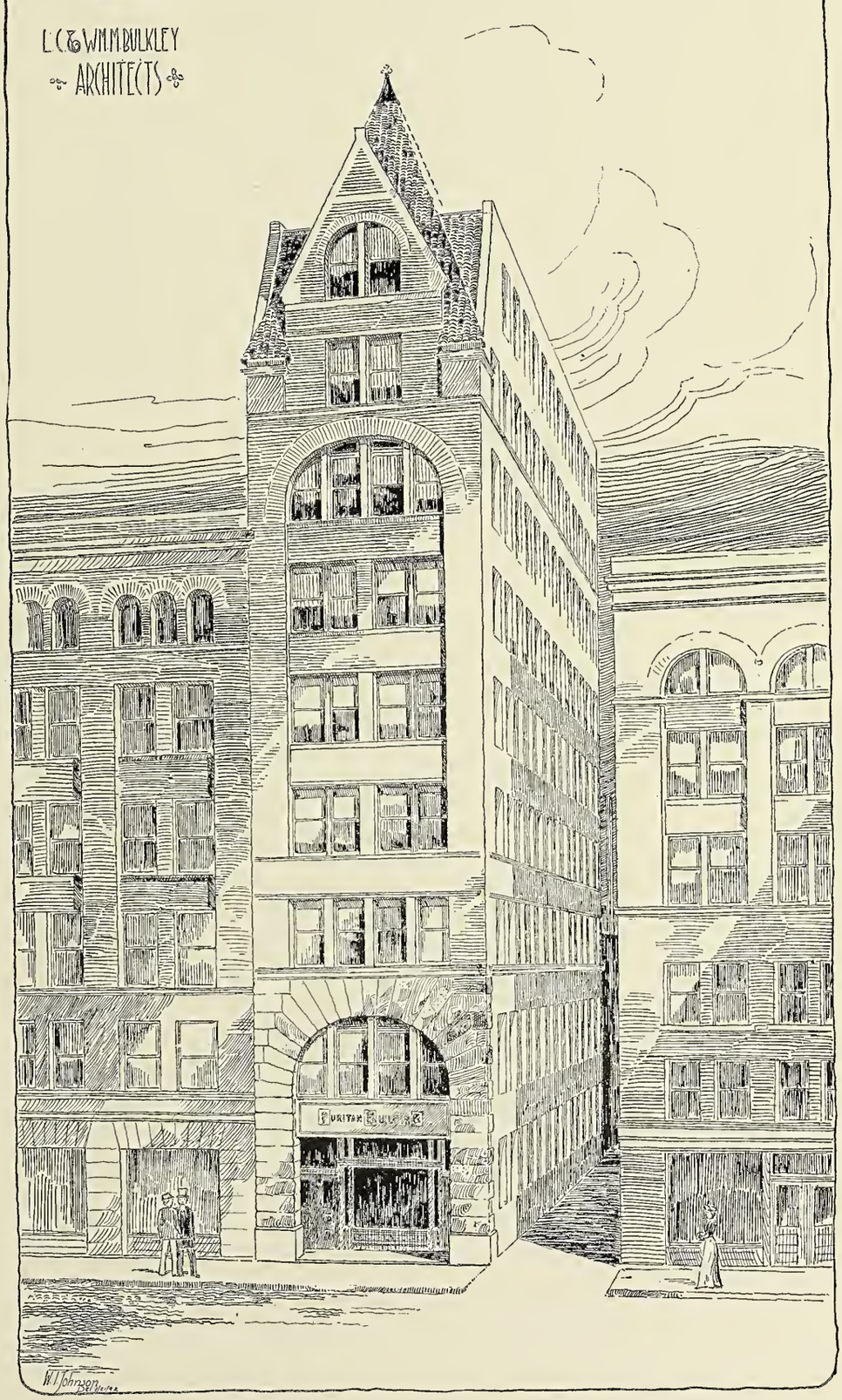
LIVING HALL AND STAIRS



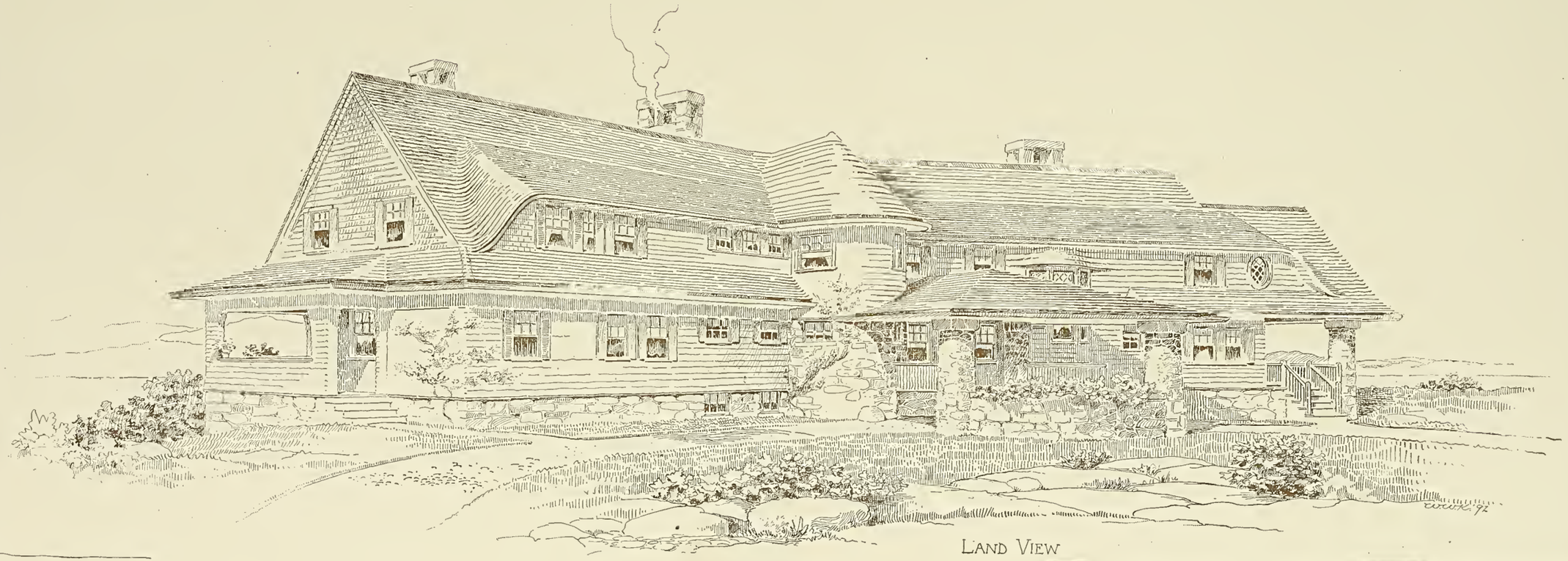
OFFICE BUILDING FOR THE
CENTRAL UNION DEPOT & RY. CO. CIN. O.
G. W. E. FIELD. ARCHITECT.

SKETCH OF
OFFICE BUILDING
FOR PURITAN REALTY CO
ST. LOUIS - MO.

L. C. & WM M. BULKLEY
ARCHITECTS



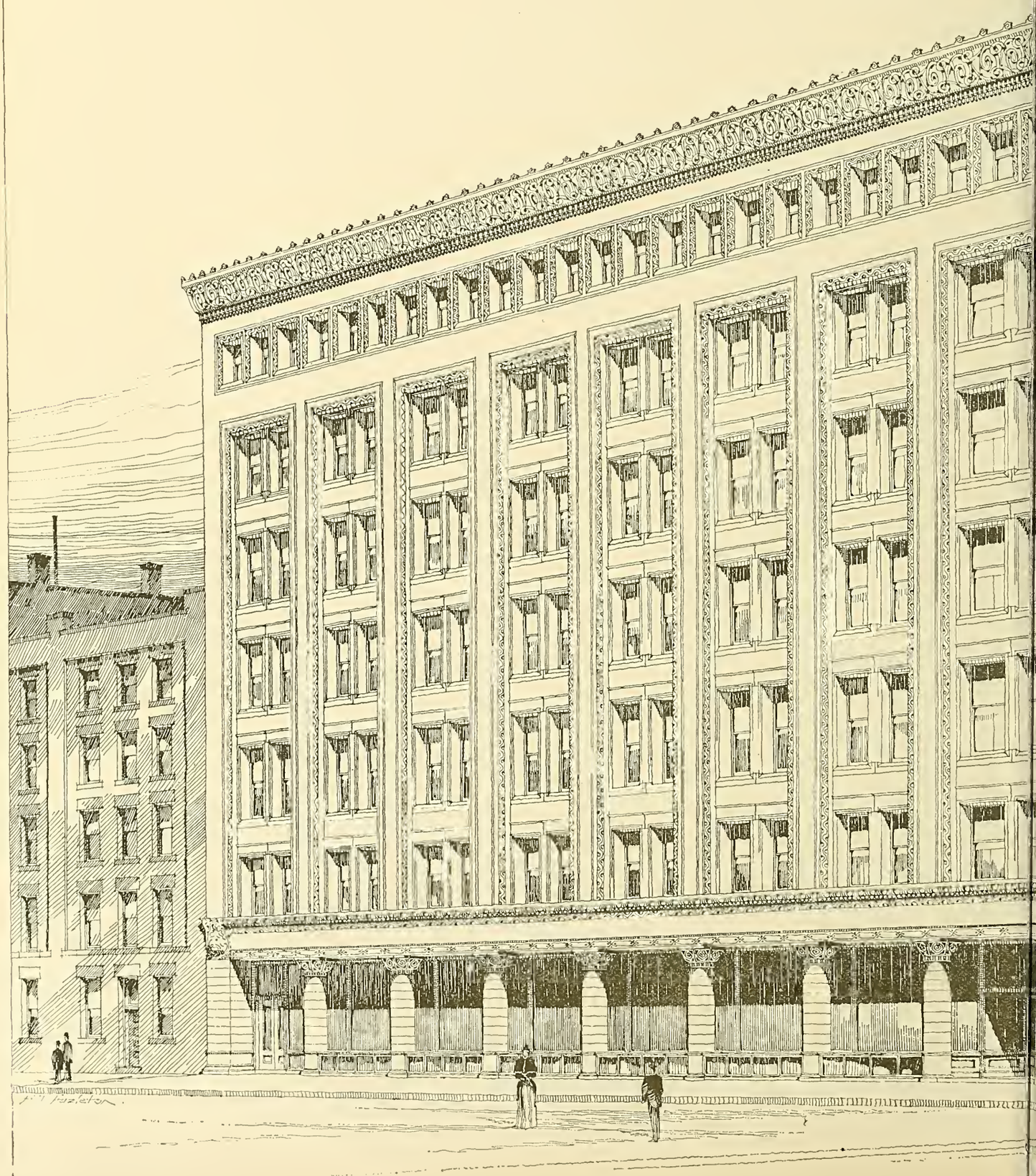
HOUSE FOR MR. J. G. MOORE.
WINTER HARBOR. MAINE.
W. W. KENT. ARCH'T. N.Y.

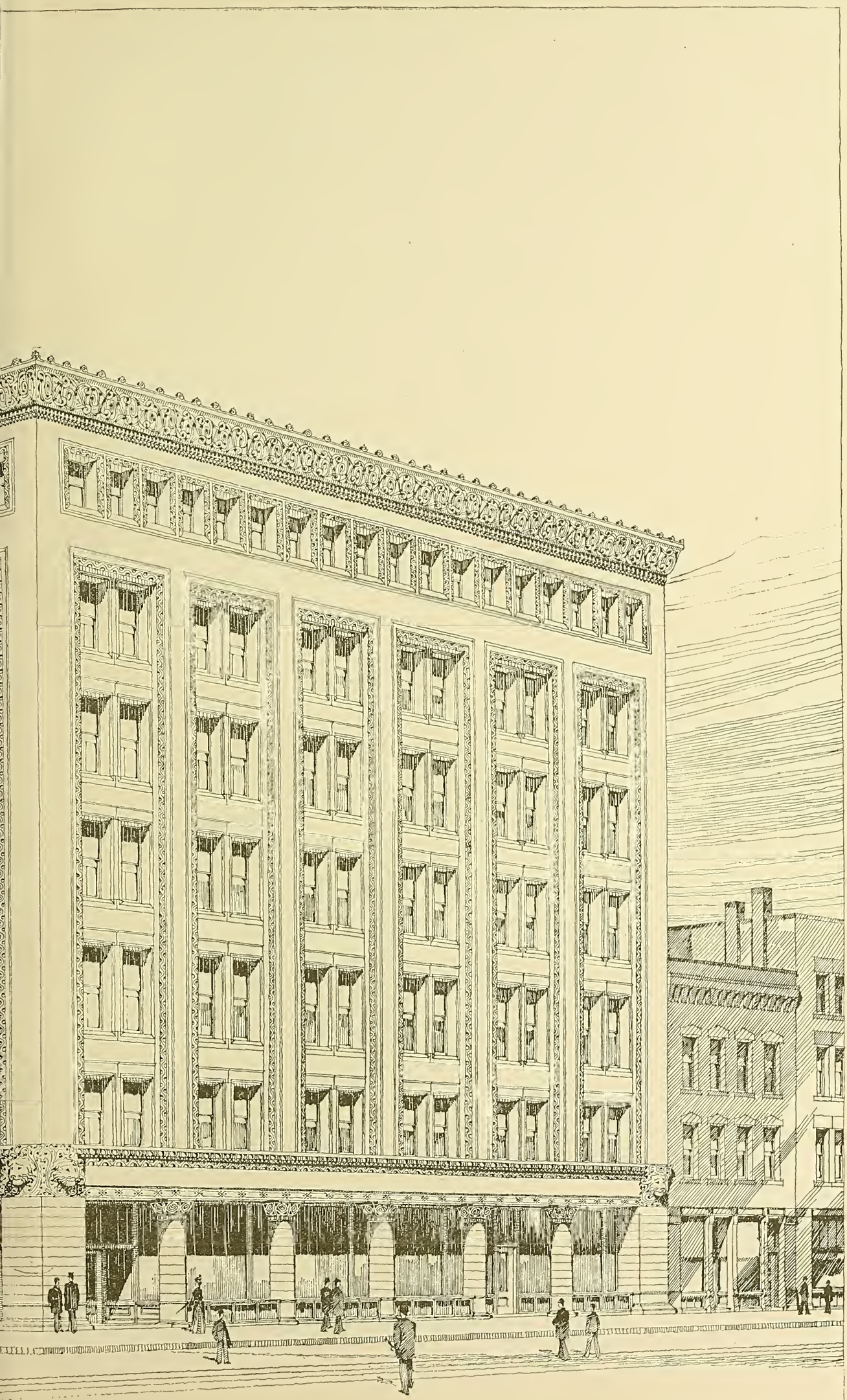


LAND VIEW

· WHOLESALE STORE BUILDING ·
· FOR THE ESTATE OF · M·A·MEYER · CHICAGO ·

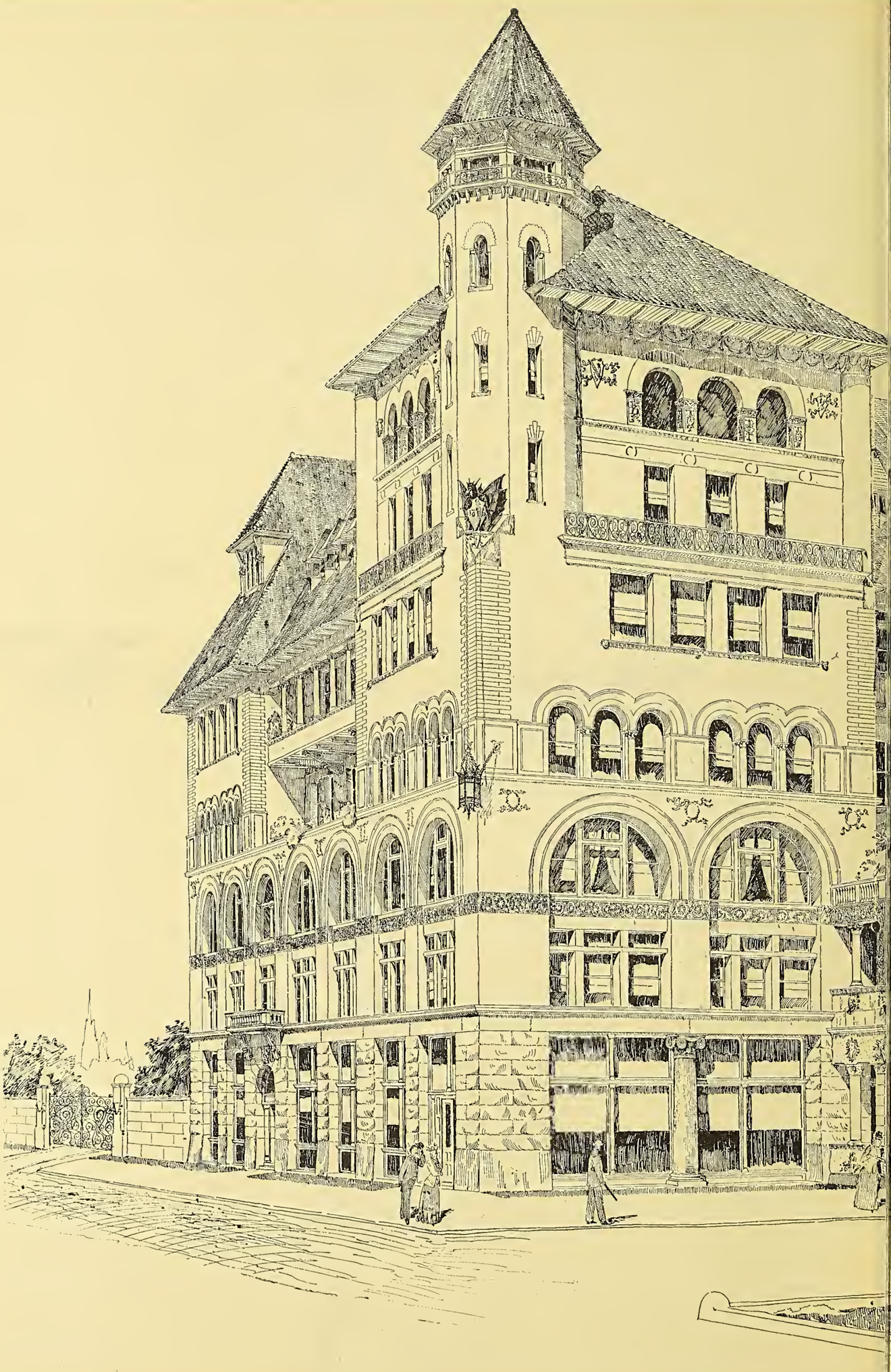
ADLER & SULLIVAN ARCHITECTS





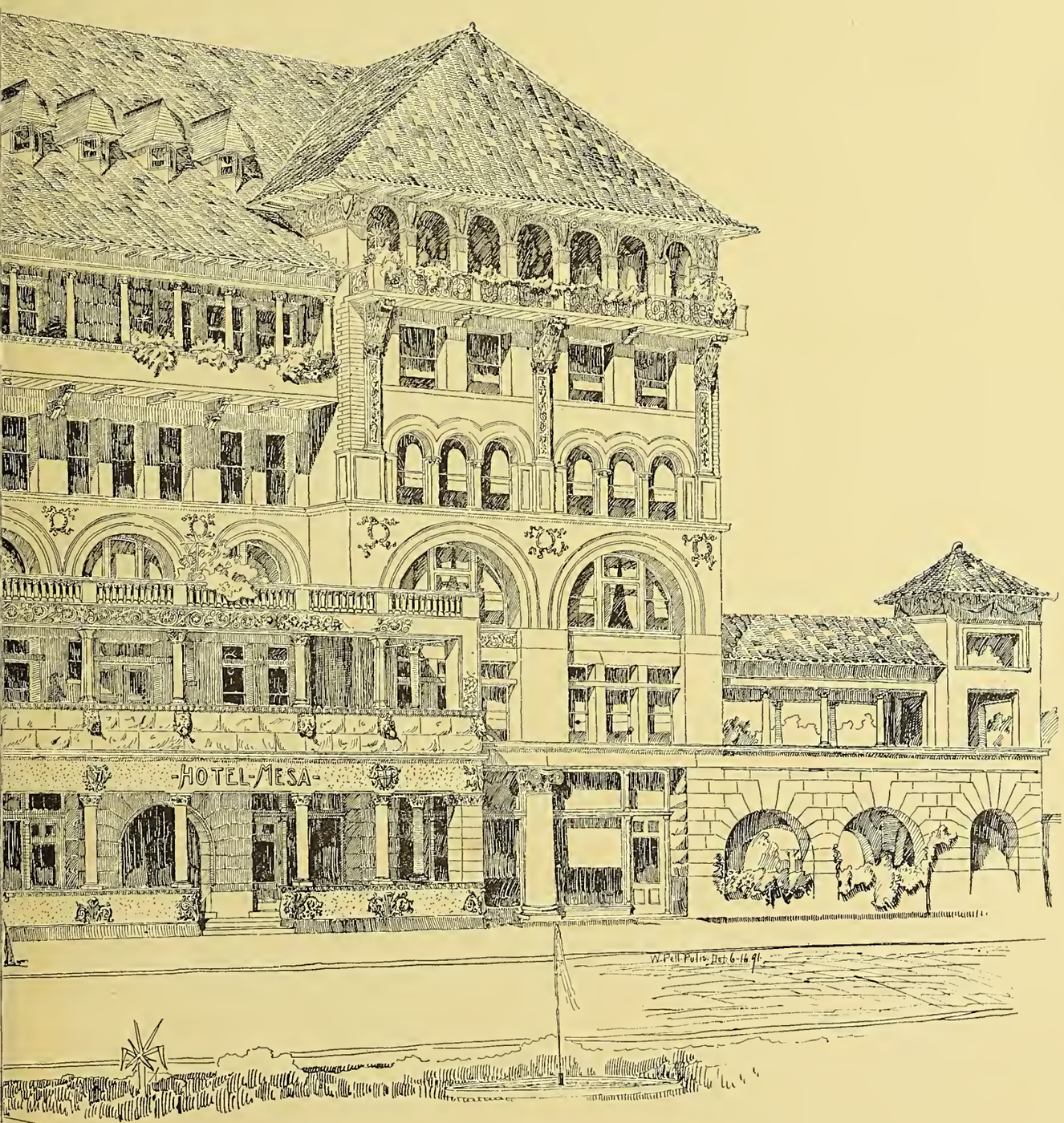
WHOLESALE STORE BUILDING
FOR THE ESTATE OF M.A.MEYER CHICAGO
ADLER & SULLIVAN ARCHITECTS





HOTEL MESA, F

LANG & PUGH, ARC



EBLO, COLORADO.

TECTS, DENVER, COLO.



HOTEL MESA, PUEBLO, COLORADO.

LANG & PUGH, ARCHITECTS, DENVER, COLO

THE INLAND ARCHITECT AND NEWS RECORD

Vol. XIX. · MAY, 1892. No. 4



A Monthly Journal Devoted to

ARCHITECTURE,

CONSTRUCTION, DECORATION AND FURNISHING

IN THE WEST.

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C. E. ILLSLEY, Associate Editor.

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Committee on Code of Professional Ethics.—Louis H. Sullivan, chairman, Chicago, Ill.; E. H. Kendall, New York, N. Y.; W. W. Carlin, Buffalo, N. Y.; Henry Van Brunt, Kansas City, Mo.; R. W. Gibson, New York, N. Y.

Committee on Clerk of Works.—R. W. Gibson, chairman, New York, N. Y.; D. Adler, Chicago, Ill.; W. G. Preston, Boston, Mass.; J. W. McLaughlin, Cincinnati, Ohio; J. G. Cutler, Rochester, N. Y.

Committee on Uniform Contract.—Samuel A. Treat, chairman, Chicago, Ill.; D. Adler, Chicago, Ill.; Alfred Stone, Providence, R. I.

Committee upon Conservation of Public Buildings.—Presidents of Chapters.

Committee on Competition Code.—(Appointed by the Board of Directors.)

The Public Press and the Windrim Bill.

The present congress will ere long decide on House Bill No. 261, brought before the house of representatives by the Honorable Mr. John C. Tarsney, of Missouri, and embodying the principal features of the bill prepared by Mr. Windrim and indorsed by the American Institute of Architects at its last convention. Our readers may have noticed that our columns have not been bristling with commendations of this bill. It must not be understood that this was from want of sympathy on our part with the objects to be attained by the bill, or with the form of the bill itself. We felt, however, that our readers did not need further argument to convince them of the necessity for the passage of the proposed law. We write this to call attention to the fact that some of the great political journals of the country have taken hold of the subject and have swung into line with the architectural profession, and without regard for party lines are actively supporting it in its efforts to bring about a reform in the architecture of the public buildings of the United States. Notably among those who have espoused our cause up to date are the *Herald*, *Times*, *World* and *Evening Post*, of New York, and also the Chicago *Tribune*. We print on another page the excellent report which accompanied this bill when it was reported back with the indorsement of the Committee on Public Buildings and Grounds to the house of representatives. Extracts from the public journals referred to will give some idea of the interest taken in the matter, and how thoroughly the public is aroused to the vital necessity for the passage of this bill.

"The results (of the present system) are architectural inferiority of government buildings, extravagance in cost and delay in the time of their construction. These evils are not to be charged to the Supervising Architect; they are the faults of the system. What the bill does is to call to the service of the government the architectural talent of the whole country in order that the best of that ability may be used in erecting the United States public buildings, which will be in every way, artistically and economically, a credit to us as a nation. There need not be any fear that the new method will be more expensive than the old, even including the cost of the competitions which would be by a direct selection of the architects, for at the hearing before the committee it was shown that the government buildings cost from half as much again to twice as much per cubic foot as such great and ornate edifices as the Chicago Auditorium building and the Boston public library, without including in the cost of former the expenses of supervising architect's fees; while in the latter case the architects' fees are reckoned as part of the cost of the building."

It is to be hoped that our readers will call the attention of their clients to the committee report herein published, with a view to their interesting other newspapers than those already mentioned in the good cause.

Example Presented by World's Fair Architects.

In the consideration of the benefits to be derived by the people of the United States by the adoption of a system for the designing and erection of public buildings such as is proposed by the Windrim bill, the method of procuring designs for the buildings of the World's Columbian Exposition is an excellent example. Here a natural selection from among the best architects in the country was made, and they were offered the same recompense as they were in the habit of obtaining for private work (though by agreement among themselves this was afterward changed to a fixed sum for each building). The results at the completion of the buildings will be apparent. The government pays a salary of $4,500 to its supervising architect, and $6 a day for its best draftsmen. No one of the World's Fair architects could be hired for a salary of

less than $50,000, with absolute control of his office and liberty to hire at the government expense just such men and at such salaries as he saw fit. A fair sample of the business value of the time of a dozen or more of the architects in the United States may be found in the answers to the questions submitted by the Senate Investigating Committee to the chief of construction of the World's Fair. When he stated that his salary was $12,000 and he only devoted two-thirds of his time to the work, the committee thought it had at last found a case of extravagance, but when the architect stated that his income from his private practice during the previous year, to which he had devoted but one-third of his time, was over $100,000, his salary as chief of construction did not seem so exorbitant. This chief of construction was asked to give his services to the World's Fair because he was one of the greatest of our architects, and those who designed the buildings were selected for the same reason. Their services do not cost any more than those of architects much less notable, and it is fair to suppose that the extraordinary skill employed does not only give the best production in design, but a large saving in cost of construction. All this the bill gives to the government, and it is singular that the people have not investigated the matter long ago and placed its architecture in the hands of its most competent men, instead of those who are willing to give their services for a clerk's recompense. Even here the greater evil is in the system which expects this one man to design and construct three hundred government buildings at once. If the report of the Committee on Buildings and Grounds is any indication of the general opinion of the present congress, the bill will pass without a dissenting voice.

A Traveling Scholarship in Pennsylvania Established.

Philadelphia architects have inaugurated a movement that will do much toward the development of architectural talent in the state. The project is to found a traveling scholarship in the University of Pennsylvania, not only open to pupils but to all architectural draftsmen in the state. It will be necessary to raise a fund of $20,000 to yield an annual income of $1,000. The present exhibition of drawings made exclusively by holders of traveling scholarships which is being held at the Academy of Fine Arts at Philadelphia will do much to stimulate and popularize the movement, and there is no doubt that the required fund will be secured so that the first draftsman will be sent abroad next spring. The architects of Philadelphia have given the plan their hearty indorsement, and the coöperation of the entire profession in the state should be secured for so laudable a purpose.

Death of James Goudie, Shipbuilder.

In marine architecture more, perhaps, than in any of the allied arts has the past eighty years brought advancement, and we are called upon to note the death of one who was intimately connected with the construction of vessels from his boyhood, and who with rare intelligence followed each change until the day of his death at eighty-three years of age, on May 7, 1892. Mr. James Goudie was born December 19, 1809, at Quebec, Canada, of Scotch parentage. His father and his grandfather having been shipbuilders, his inclination and genius took that direction, and having learned the art in all its branches in the shipyards of England, he returned to this country and in 1833 superintended the construction of the Royal William, which was the first vessel to cross the Atlantic ocean propelled by steam power alone. This vessel crossed the ocean to London in twenty-five days and subsequently was sold to the Spanish government. Mr. Goudie was connected with the construction of over one hundred vessels, and in 1836 was employed in the New York navy yard in cutting down and rebuilding the United States sloop of war, Natchez. In speaking of a long and eventful life such as his the character of the man is subservient to no other trait. Always prompt in action, always a close student of affairs, Mr. Goudie was a philanthropist in the highest sense. His influence extended over all with whom he came in contact, and the effect of the words of wisdom uttered in his later years upon the future of those whom he taught by action and precept follows him in the world's work.

Robert Clark Medal Competition.

For the fourth time the Robert Clark Medal Competition, open to all the draftsmen in the country under thirty years of age, has been formulated by the committee in charge. It is one in which much skill, research and designing ability generally is called for, and will probably bring out the largest number of drawings yet submitted in any of the Clark medal competitions. The report of the committee and arrangement of prizes is as follows:

PROSPECTUS.

The Committee on Competition for the Clark Medal places the following problem before competitors:

Required a design, Egyptian in character, for the entrance to a large cemetery, with which shall be combined a waiting-room, a crematory and chapel.

The scale of drawings and character of rendering to be left to the option of the competitors. The drawings to comprise two sheets, mounted upon stretchers, each measuring 18 by 24 inches. There must be a ground plan and perspective. The furnishing of details and geometrical elevations is left optional with competitors.

Drawings shall be addressed to Dankmar Adler, 1600 Auditorium Tower, and delivered on or before September 15, 1892.

DANKMAR ADLER,
N. CLIFFORD RICKER, S. A. TREAT,
HENRY IVES COBB, LORADO TAFT, } Committee.

TESTIMONIALS.

First, Robert Clark, ...Gold Medal.
Second, " " .....Silver "
Third, " " .....Bronze "
Honorable mention..... " "
C. A. S. C. Complimentary..... " "

Competition is open to all architectural draftsmen under thirty years, excepting practicing architects.

Premeated drawings to become the property of the Chicago Architectural Sketch Club. All other drawings returnable after the annual exhibition and banquet of the club, November 28, 1892. JOHN E. YOUNGBURG,
Secretary Chicago Architectural Sketch Club.

In addition to the gold and silver medals the addition of three bronze medals will lend greater interest and encourage the younger and less experienced draftsmen to enter the lists with those who have gained a national reputation for their skill in architectural design. It is notable that one club has postponed the announcement of dates for its own competitions until the date of the Clark competition is announced, which is an indication of the strong interest taken by draftsmen generally in this gift of Mr. Robert Clark for the encouragement of architectural design in the United States.

Typographical changes in The Inland Architect.

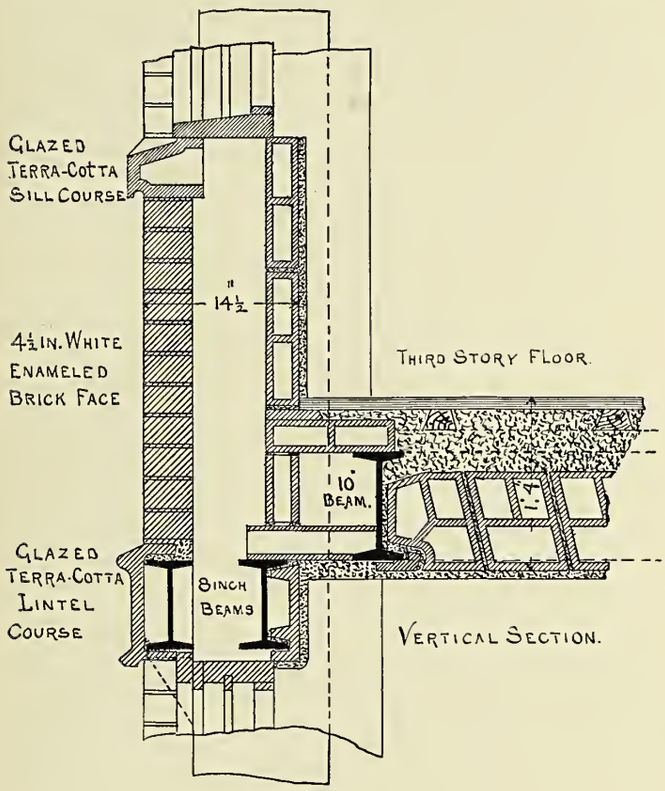
It will be noticed that THE INLAND ARCHITECT appears this month in an entirely new and in many respects improved typographical dress. The object is to place the text matter before our readers in the most readable type made, and do what we can, as publishers, to present the best in typographical as well as architectural art. We present the result for the approval of our readers.

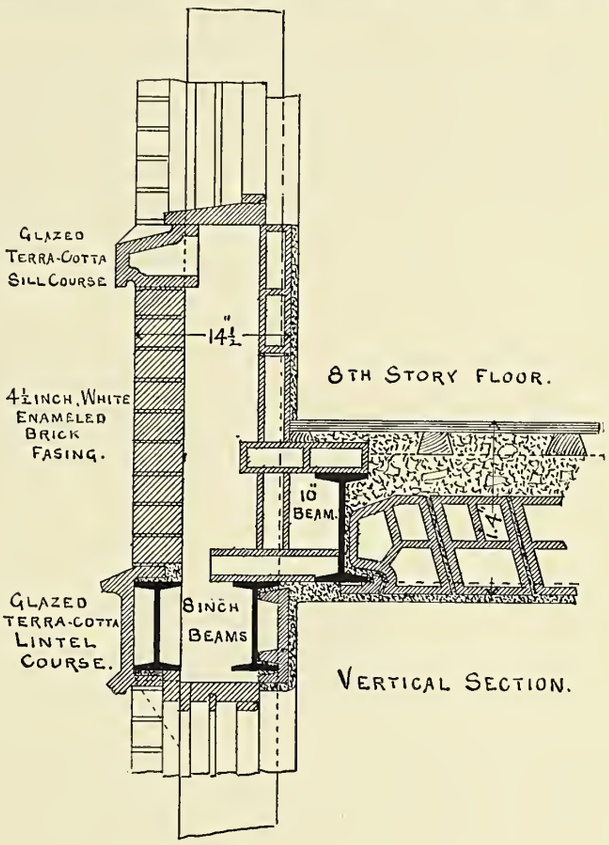
RECENT FIREPROOF BUILDING IN CHICAGO.

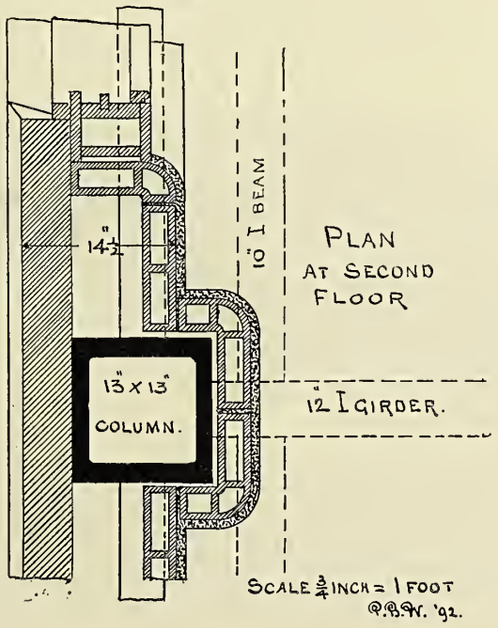
BY P. B. WIGHT, ARCHITECT.

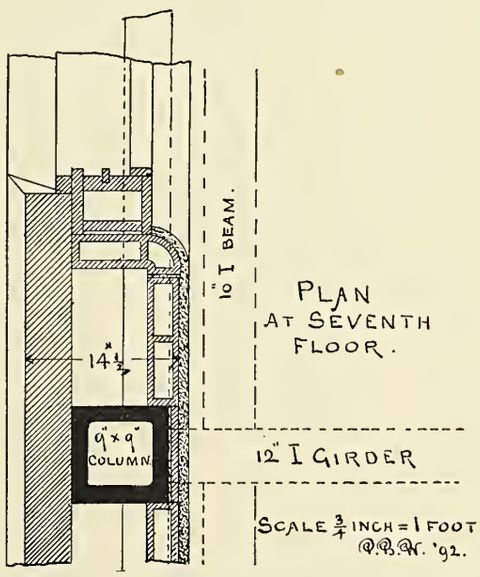
PART IV.

THE following illustrations were not prepared in time to appear with Part III. They show the construction in detail of the court wall of a building in which cast-iron columns were used. Ground plans are given at the second and seventh stories, and vertical sections through the third and eighth floors. The architect set the outside floor beam off from the exterior wall to leave a space for carrying up heating pipes outside of the floor arches, which is not a necessary provision. In order to get flat









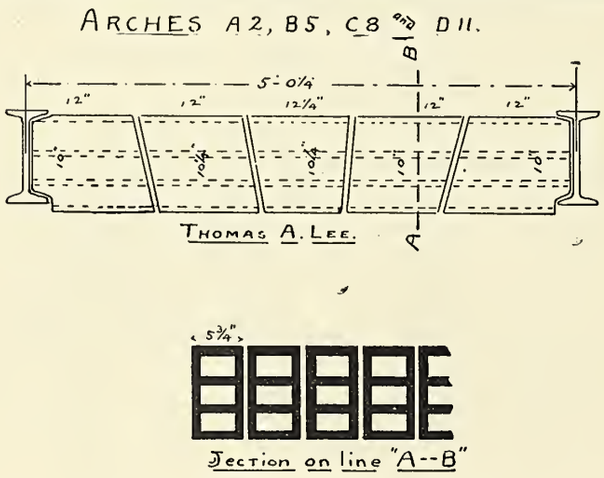
ceilings throughout showing no girders, so as to enable him to place partitions in any location without showing breaks in the ceiling, he made the ten-inch floor beams flush with the twelve-inch girders at the bottom. This made the floors two inches thicker than would have been required had the girders been set below the floor beams, which two inches is represented by thickness, weight and cost of that amount of concrete. It will be seen that the I-beams carrying the exterior enameled brick are set on the outside of the cast-iron columns on brackets, which is the usual method. The I-beams forming the heads of windows on the inside are set between the iron columns on brackets. They also carry the inside lining, which in this case was of three-inch hollow tile. This is a good plan, if the window heads are to be below the ceiling, because the I-beam can be covered with the regular beam tile, which is better than when the filling is a row of tiles set on top of the wooden window frames, which is the case when the outside I-beam of the floor carries the inside lining in addition to the last floor arch. In some cases where deep window jambs are desired, the interior wall of hollow tiles is built on the floor arches irrespective of the position of the beams. Any one floor can be thus treated independent of all others, but the work has to be done after the floor arches are set.

In this illustration it will be seen that the bracketed beam carries a skin of 4½-inch English white enameled bricks, without backing. The lintel course is formed with buff, lead-glazed terra cotta fitting around the beam. The buff, lead-glazed terra cotta sill course is independent of any beam work, and is built in with the brickwork. On the inside the large iron columns are treated

as pilasters, being covered with three-inch hollow tiles continuous with the inside lining, and breaking around the columns. They have rounded corners. In the upper stories this pilaster finish is omitted, and a slab of tile is set against the column. It will be seen that the windows have hollow tile jambs with round corners. The plain plastering is carried to the window frame at sides and top, leaving only the sill to be finished with wood, iron or marble. The wooden frame being thus isolated can be burned out without communicating fire to anything in the interior. An observance of this method is of more importance than anything else entering into the construction of a fireproof building to prevent fire being communicated from the exterior.

THE CONSTRUCTION OF FIREPROOF FLOORS (CONTINUED). FLAT ARCHES ON THE "END-PRESSURE" PRINCIPLE.

It is only within the last two years that flat floor arches on the "end-pressure" principle have been brought into practical use. In 1875 Levi T. Scofield, of Cleveland, Ohio, patented a system of ceiling construction in which burned clay hollow tiles were to be used running from I-beam to I-beam in one piece. They were described to be either in arch form or straight. Long before this it had been proposed in England to use hollow tiles of triangular

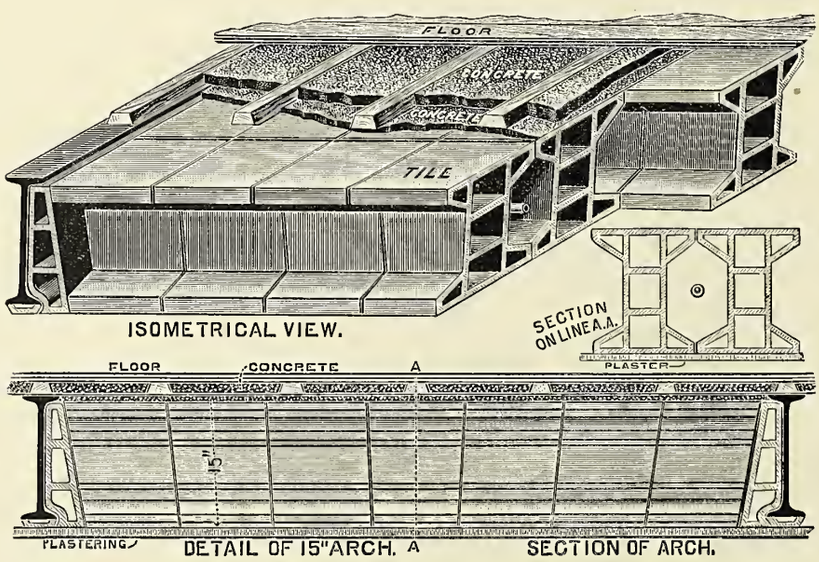


section running from beam to beam to form ceilings. In 1879 Leonard F. Beckwith, of New York, patented a flat arch in two pieces, one being a skewback piece and the other a long, hollow tile running to the opposite beam. These being set close together and the skewbacks alternating on opposite sides would form a continuous ceiling and floor support. But I am not aware that the invention was put into practice. In 1883 Alfred P. Boller, of New York, invented a floor construction in which arches were made of three pieces of porous terra cotta set at intervals, but they are not described as hollow. They were to be cut to fit the beams so as to form skewbacks, and the central piece was to form a key. They were described as being made of a single piece of porous terra cotta run out through a die and cut into the three sections of the desired form before drying and burning. They were to be set at intervals and covered with slabs of the same material to form the floor and ceiling. When set in arch form, the pressure was to be on the "end grain" of the material used. Experimental floors of this construction were made, and they developed an extraordinary strength. Later a demonstration of the strength of floors of similar construction but built of hollow blocks of the same material was made on the site of the "Rookery" at Chicago before its erection. In this case I believe that the arches were set close together to form a continuous floor and ceiling. About three years ago, William B. Owen, of Hobart, Indiana, manufactured square, hollow tiles 9 by 9 inches in size, with two interior webs crossing at right angles and leaving four hollow spaces. They were made of porous terra cotta run out from a horizontal press and cut into the form of skewbacks, voussoirs and keys, and set close together to form continuous ceilings and floors. As laid they did not break joints either way, and the ceilings presented the lines of joints crossing each other at right angles. These tiles were used for the construction of part of the Metropole hotel at Chicago, in the government building at Denver and some others. About the same time rectangular tiles 6 by 12 inches in size of porous terra cotta with two hollow spaces were used in a hotel connected with the Broadway theater at Denver. They were of the same manufacture and were set by Thomas A. Lee.

It was after this, in December, 1890, that the only accurately recorded test of these arches was made at the new Equitable Building, at Denver. The arch was five feet in span and ten inches thick, and sustained a load of 1,730 pounds per superficial foot without breaking, and showing a deflection of one-half inch. At the same test a hollow tile arch of the same dimensions, but built on the side-pressure principle, broke at a pressure of 1,001 pounds per superficial foot, and another at 651 pounds per superficial foot. The foregoing is an illustration of the end-pressure arch, the material for which was made by William B. Owen, at Hobart, Indiana. It was set and exhibited by Thomas A. Lee.

This arch, unlike those which had previously been used by the exhibitor, was built of porous terra cotta tiles which had been manufactured especially for the test, and had two cross webs, leaving three hollow spaces in the heights of the tiles. The fire-clay hollow tile arches had only one cross web in the center, and were taken from manufactured stock in both cases. The arch which broke at 1,001 pounds per superficial foot, made by the Wight Fireproofing Company, sustained all that it was guaranteed to carry. A full and detailed record of these tests was published at the time in the *American Architect and Building News*. To avoid any discussion of the accuracy of what I have said, it is proper to state that the breaking loads of the still-load test, per superficial foot, were not given in the report. The loads were applied on boxes of sand three feet square, covering a surface of nine feet, and I have divided the total load in each case by nine. They were not uniformly distributed loads for the reason that the sand was not distributed from beam to beam. The tiles next to the skewbacks were subjected to a shearing strain, and this was demonstrated by the way in which they broke.

But the greater strength of a porous terra cotta "end-pressure" arch *of the kind tested* was demonstrated, as well as its resistance to shearing strains. The fire-tests made at the same time on similar arches did not demonstrate anything favorable to the "end-pressure" system of construction. Whatever superiority there may have been in these arches was due to the nature of porous terra-cotta as a material, which has long been known. It is in itself a non-conductor of heat, and when made hollow has the added advantage of its non-conducting air spaces. But its value as a fire-



resister depends upon the quality of clay used in its manufacture more than hard hollow tiles. In my opinion the fire-tests to which both kinds of hollow tiles were subjected at that time were all that were necessary to enable them to fulfill their purpose in the fiercest conflagration, and while the greater strength of "end-pressure" arches was demonstrated, the hollow tiles showed that they were sufficient for the purpose under all circumstances. When all the

service that is called for is obtained from a material, and it cannot be made lighter, nothing is gained by introducing stronger systems of construction. We do not build of granite because it is stronger than brick when brick will answer, and if the end-pressure system should be more expensive than the old one, there is every reason why we should adhere to the old one. There is a slight advantage in its favor where any undesirable weight can be dispensed with. This has been taken advantage of by E. V. Johnson in the "end-pressure" flat arch which he has invented and patented. The illustration shows its construction in detail.

This form of arch has been recently used by the Pioneer Fireproof Construction Company in the Fair building, the Masonic Temple, the Woman's Temple, the Ashland Block and the Hotel Lexington. It was first made for fifteen-inch arches in the Fair building, where the beams were fifteen inches and the spans eight feet, and lightened the floors by dispensing with nearly all the concrete. These arches, in the other buildings mentioned, have been built twelve inches and nine inches deep, but I can see no advantage in using the system for arches of less than twelve inches.

The Illinois Terra-Cotta Lumber Co., of Chicago, has used twelve-inch porous terra cotta "end-pressure" arches in part of the Monadnock building during the present year. They use the shaped skewback, with openings running parallel with the beam, and cut voussoirs and keys set close together without any hollow space between them, which is the peculiar feature of Mr. Johnson's invention.

SOME NOTES UPON THE EARLIER CHICAGO ARCHITECTS.

THE following notes upon the earlier practitioners in Chicago have come into the possession of the editors of THE INLAND ARCHITECT, and are published as given not only because of the local interest attached to them, but the general interest involved in the many circumstances that surround this bit of architectural history from the pen of one of the best known among those who produced the earlier architecture of Chicago, and is still most active in the work. Coming as a personal communication it is published with all its personality intact.—EDITORS INLAND ARCHITECT.

CHICAGO, May 17, 1892.

MY DEAR MCLEAN,—I send you herewith a letter written months ago to *America*, which was called forth by an anonymous article upon "The Architects and Architecture of Chicago," published in the number for November, 1890, of that journal.

In the hurry and rush of business, my letter was laid aside and forgotten until now. I think that some of its contents will interest at least the older ones among your readers. A melancholy interest attaches to the matter from the fact that the then anonymous author of the article in *America* was none other than our late-lamented, mutual friend, John W. Root. It was his last contribution to the literature of his profession, and worthy of a place in the collection of local historical and critical writings of everyone interested in the rise and progress of the architecture of Chicago. While Root's article is discriminatingly critical, it also reveals his sympathetic nature and goodness of heart. His criticisms upon his own work show that he had set himself a high standard of perfection, and that had his life been prolonged he would have risen higher and higher in the scale of our esteem. I suggest that, if not in this number, at least in some future number, you republish the article from *America*.*

Very truly yours,

DANKMAR ADLER.

To the Editor of America:

Permit me to thank "A Prominent Architect" for his kindly appreciation of my efforts to make myself useful to the community in which I live. His gossip of the methods in vogue among architects in the days of my youth, and his mention of so many familiar old names, has awakened in me a desire to chat of those days when so many of us who now stagger under arduous duties and responsibilities were as light hearted and as unmindful of the morrow as are the boys of the "Sketch Club" of today.

In those days there was no Sketch Club. Draftsmen worked ten hours per day, but the ambitious ones managed to find a little time for sketching tours early of mornings and on Sundays. Of winter evenings we older ones instructed the youngsters in elementary geometry and algebra, and in the theory of perspective. I remember that among my pupils of that day were Jack Flanders, also Charley Kessel, now the Nestor of the Sketch Club, and Bschaidtner, now one of the assistants of George B. Post.

Fritz Foltz and Fritz Wacscher commenced their American career under my tutelage, in the office of Mr. Kinney, in '69 or '70, both just over from Germany, and not on speaking terms with the English tongue. Foltz, then already a great overgrown boy, full of resources, an indefatigable student, and, if possible, more positive and blustering, and every bit as genial and as clever as today. Those were the days when he was one of the Germania Mænnerchor, and varied the flirtations incident to his connection with the choir of Grace Church with similar performances with the stage beauties of the Mænnerchor's presentation of the Zauberflöte, on the stage of the Crosby Opera House. And Fritz Waescher, who was a member of the Concordia, the rival musical society, which gave us the Freischütz on the same stage, was then, as now, the accurate, painstaking, plodding draftsman, and soon became the stern, unflinching martinet in the discharge of the duties of superintendent, to which I introduced him, and in connection with which he was early brought to the notice of Mr. Blatchford, who has since made such extended use of him in his trusteeship of the Newberry estate, and who has only lately compelled Fritz's return from a well-earned rest in Europe, that he might assume charge of the supervision of the construction of the Newberry Library.

Those were the days when every draftsman in Chicago worshiped John Roberts, the able foreman of Boyington's office, and whom we honored by election to the presidency of our baseball club. We used to play baseball, and I believe this was the beginning of the era of shorter working hours and of half-holidays, every Saturday afternoon, in the open grounds at the corner of Prairie avenue and Thirtieth street. Jack Flanders and Charley Furst, who, by the bye, were our crack players, still can show broken fingers achieved in the contests of those summer afternoons. I wonder whether Bill Thomas, who was then only the son of his father, remembers the day when he used his eye for capturing a sky ball? Other heroes of the architectural baseball field were Welsh and Pitner, both of Boyington's office — Boyington was the Burnham of the sixties and early seventies.

When after the death of the elder Kinney I, conjointly with the younger Kinney, first hung out my shingle, it was in the Oriental building, a few doors removed from Henry L. Gay's room. He was not yet a "Lord" in those days. I remember how we used to look at each other's work and describe to each other the visions of pure delight into which we expected to transmute the tasks confided to us by recklessly over-confident clients. Gay at that time was drawing the Congregational church at the corner of Washington and Ann streets, and the University buildings of Fairbault, Minnesota, while I was working upon two churches, two business blocks and the waterworks, erected at La Porte, Indiana, and the Methodist church of Kalamazoo, and was carrying off most jauntily the responsibilities of the University buildings at Wooster, Wilcoxson's opera house at Freeport, and other work inherited from the elder Kinney.

I made it a habit to visit the offices of such of my seniors as seemed willing to tolerate my presence. Among these I remember particularly, Mr. Wadskier and also Mr. Dixon, who, though I fear this statement will cause many a doubt of my veracity, was established as a practitioner long before I was, and who was at that time superintendent of the old government building, partly destroyed in the fire, afterward known as the Adelphi theater and then as Haverly's, and finally demolished to make room for the First National Bank building. From Wadskier and from Dixon and also from Burling and from Randall I learnt many valuable lessons.

During this period was the advent of the firm of Loring & Jenney in our midst, and I think that "a prominent architect" is mistaken in ascribing the design of Grace Church to Jenney. I am quite certain that it bears all the marks of Loring's erratic genius.

I cannot end my retrospect of this period of my youthful irresponsibility without noting, that already in the sixties Fred Baumann was a "little giant," and had in a checkered career, sometimes as architect, sometimes as contractor, shown himself as brilliant and as resourceful as we know him today. And the biting sarcasms with which he assailed our petty weaknesses seemed to us then only maliciously pungent. We had not learned to read the kindly humor tempering a stern sense of justice and a keenness of judgment, which we now recognize in all his sayings and which endear his picturesque figure to us all. I had no personal acquaintance with either Boyington and Van Osdel until years

*The article by Mr. Root was republished in THE INLAND ARCHITECT for January, 1891.—EDS.

after the great fire. The best work of the architects of early Chicago, and in the enumeration of these Otto Matz and Robert Schmid must not be forgotten, was obliterated in the two great fires. Some of the buildings, such as the old Portland block, the Marine bank, the Ogden building, the Illinois Central depot, the Masonic Temple, the Rock Island depot, the Oriental building, would be considered very creditable productions at this day.

An enumeration of those still remaining and stories of their designs would form the substance of an interesting article for your columns, which I should like to see written by one of the "old timers."

In January, 1871, the firm of Kinney & Adler was dissolved, and that of E. Burling & Co. was formed. My place with Kinney was taken by Max Ruppius, a noble, bright, ambitious boy, who soon after died of a malignant fever induced by his chagrin at the unfortunate conduct of his employer.

My connection with Mr. Burling continued for eight years; the firm being at different times E. Burling & Co., Burling & Adler, and Burling, Adler & Co., the company being Mr. William H. Willcox, formerly of Brooklyn, then of St. Paul, and now, I believe, of Seattle.

Our joint career began very prosperously, and therefore our losses due to the destruction of important buildings in course of erection at the time of the great fire, were very great.

Toward midnight on the night of October 8, 1871, I was walking homeward when I saw the glare of the fire on the West Side. I went as far as Twelfth street bridge, did not think it would be much of a fire, turned back, went home and to bed. I was living with my father at No. 41 East Thirteenth street. He aroused me at two o'clock. It was, even at that distance from the fire, as hot as in an oven. It was almost light enough in the street to read a newspaper. Wabash avenue was crowded with people rushing southward, carrying books of account, money boxes, clothing, bedding, clocks, furniture, etc. I was stunned and bewildered by the rush of the crowd, and by the roar of the wind and of the flames, which could be heard already at Twelfth street. But I failed to grasp the situation, or I should have hitched up my horse, driven down town and saved the many drawings stored in our office, which would have possessed inestimable value in the settlements with insurance companies and the labors of rebuilding on old foundations, which had to be begun so soon after.

I sauntered down town as far as the corner of State and Washington streets. At that time there was no fire there, and it was thought that the best part of our business district would be saved from destruction. I wandered about at first in an aimless sort of way, and in my wanderings noted the peculiar and insidious manner in which the fire spread from building to building. At that time the North Side was well ablaze, but the South Side, excepting a strip of I think not over two blocks along the river bank, was unscathed, and the main current of the wind, which was blowing almost a hurricane from the Southwest seemed favorable to its preservation. There came, however, here and there, eddies and return currents, which started occasional blazes in the wake of the main fire, and these minor blazes blown to the windward again and again widened the track of the fire until it had reached the lake as far south as Congress street.

I was engaged several times in efforts to tear down buildings in the track of these minor conflagrations, but in every case the fire overtook us before we had done our work. I also had occasion to help several friends to move their furniture, books, etc., to what were believed to be places of safety. In one instance I carried a great basket containing a set of Encyclopedia Brittanica, to three separate and distinct supposed places of safety. Each finally was reached by the flames, and it, together with everything else I had been trying to save was destroyed.

When I reached home that evening I had the sensations which I had felt during my soldier days, after a hard-fought battle. But as in war time, there was no such thing as unbroken sleep for any of us. There were square miles of glowing embers about us, and any change of the wind might have destroyed what was left of the city. The waterworks were destroyed, and the fire department was fagged out. And so every neighborhood organized its home guard, and we patrolled the streets and alleys all night, our duty being two hours on and four hours off—quite military you see. I wonder whether Dr. Hoyne, my brave companion in arms, remembers the bludgeons we carried, and the valor with which we explored the gruesome recesses of the old mill near Sixteenth street.

(To be continued.)

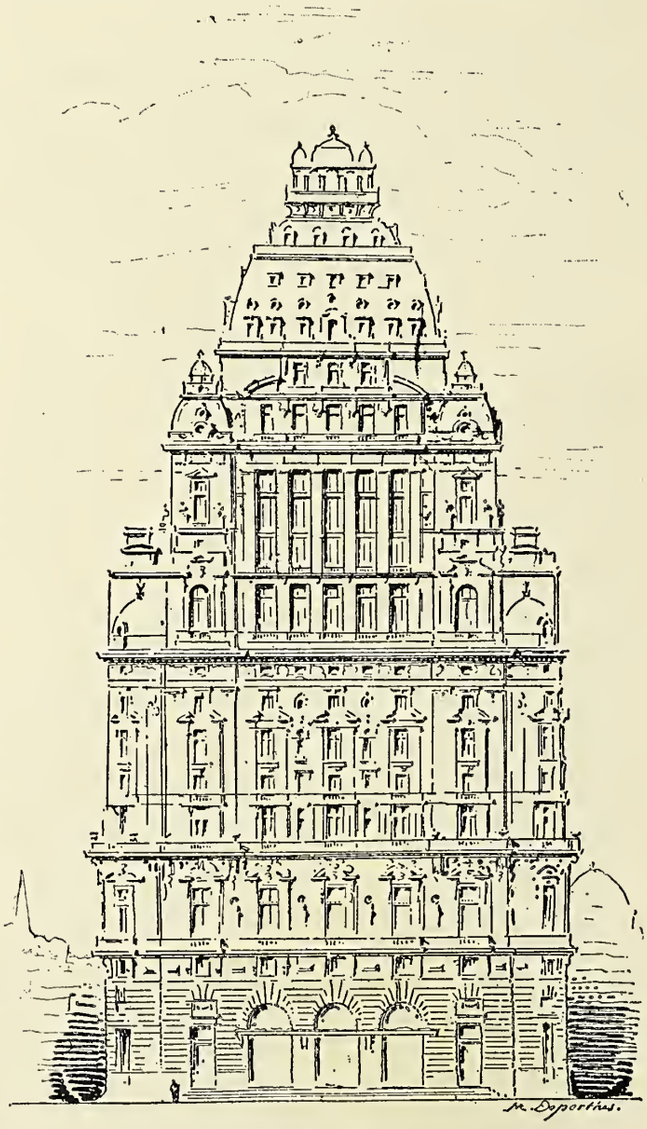
NOTES FROM OUR FRENCH ENCHANGES.*

AMERICAN HIGH BUILDINGS AS CONCEIVED OF BY THE FRENCH.

THE prize known as the "Prix de reconnaissance des Architectes Américains," recently established by former American pupils at the Ecole des Beaux Arts, and open only to French scholars, has just been decided this year in favor of M. Deperthes. There were nine competitors, rather a larger number than usual, and the subject was supposed to be a sky scraper on the American plan, but the programme was so far removed from real American ideas, and so utterly impracticable, that *La Construction Moderne*, in publishing a sketch of the prize, is moved to say: "The Superior Council wishes this year to show to the 'grateful Americans' a proof of appreciation as strong as the latter showed by the establishment of this prize, and accordingly outlined a programme upon the subject of a high building.

As is well known, certain buildings in the hearts of the large cities of the United States are built fourteen, fifteen, and even twenty stories in height. That the architecture of these extraordinary piles is an exceedingly difficult problem is proved by the American publications, which continually contain drawings showing the efforts of the American architects, crowned with more or less success, showing that the designers are continually seeking to render the form and details of these constructions elegant, which are already imposing by their very size.

According to the programme given to the competitors, it appears that it is desired to erect a building of fourteen stories, not counting two or three additional stories that may be placed in the roof,



UNE MAISON A FOURTEEN ÉTAGES—PROJECT DE M. DEPERTHES.

which of itself shall be made a feature of the edifice, contributing to the general effect. The lot, 125 feet front by 200 feet deep, has light on all sides.

The fourteen stories are to be used as follows: The first floor will contain the offices for the administration and surveillance of the building, as also restaurants and billiard rooms, with all necessary kitchens, conveniences, etc. The height of this story, which

* Translated and arranged for The Inland Architect by W. A. Otis.

if desired may in certain parts have a half-story, shall be at least thirty feet. (Fine height!)

The second story shall be club rooms, which are very important, with concert room, card rooms, dining room, library, etc.; in fact, everything requisite for such an institution. Height, not less than twenty-five feet or over forty.

This is pretty fine! Imagine the total height of a building twenty stories high. According to this programme, it would appear as if the Americans piled up things as if they cost nothing! Above the second story there shall be three, four or five stories devoted to banking institutions, stores and offices, some large, others small, ranging from nine to twenty-five feet in height. Finally, the three upper stories, including the fourteenth, shall be laid out according to the idea of the designers. "This design should have a bold cornice and roof line." Imagine the result! but this is not all; "in the great roof (and it is a tremendous one) the stories will be lighted either by means of some architectural 'motifs' in stone, or by wood or metal dormers, in such manner that the entire roof shall be interesting artistically."

This is probably for the American artists living in adjoining roofs, since from the street below persons will scarcely be interested in such *high* art. Above this all, the roof is to be crowned with a terrace or loggia. The height of this construction, according to programme, would be certainly not less than 200 feet, and possibly 275 feet.

Of course no one will be surprised to know that the interior courts of such a building will be nothing more than dark, damp wells. And, apparently, it is unnecessary to think particularly about the lighting of the various rooms in the interior of the building. Near the center would be placed two large elevators and two small staircases, and near the rear of the building two smaller elevators. This programme, in order to make it a veritable picnic in comparison with the usually serious programmes of the school, only requires two plans for such a varied collection of floors, and these are limited to the first two, which are only administration, restaurant and club.

The real subject of the competition consists in the composition and study of a façade, to which it is expected "to give the character of a grand composition (?), and to vary the elements of it while preserving a unity of the whole." For this purpose may be employed "the orders, balconies, loggias or windows (probably bay windows) upon the front or at the corners." Without doubt these accessories constitute the sure means of obtaining "variety in the unity of a grand composition."

"Above the first story, circular or rectangular towers may be used to aid the movement and give diversity," but of course it is understood that these towers "aiding the movement" (something like wings, useful in case of hereafter wishing to transport such a construction as this) should not in the least destroy the effect of a "general conception which shall make of the façade a complete and well-balanced whole. * * * This problem may appear difficult (we confess it does!), but it is far from being unsolvable." That must depend upon the manner in which the problem is stated. If in the beginning it is admitted that the exterior of a building of this importance should show as much as consistent without affectation or the extreme of rationalism, what exists in the interior; and further, if it is noticed that in the problem proposed here that the greater part of the stories instead of being living apartments, as with us, are there utilized as offices, then it would seem as if before all, plans of the different floors should be required of the competitors.

These having been adopted, the exterior form or silhouette might at least be studied out with reference to this interior, and then, if possible, the various minor details which are supposed to give "movement" to the decoration.

The same as an architect here lays out the sketches for a six-story building by commencing with a plan of the apartments and not with a plan of the store, or restaurant, to which the first story may be rented, so in America the plans for a great commercial building are laid out commencing with the office floors, hence the plan of the first and second stories, however influential, might possibly be the "club" that was to occupy these rooms, was really of less importance than the office floors with reference to which the façade should be designed.

According to the report of those in a condition to know, the real cause of these vast buildings of fifteen or twenty stories is the high price of land in those quarters where the commerce is concentrated and where each man desires to have, not his residence (for most persons live far from the place of their work), but rather simply an office. To employ all the land at one's disposal in the most economical manner, placing elevators in the center of the block and leaving the frontage free for light and air is certainly sufficient for a real programme of value. All of this need not, moreover, destroy the architectural treatment of the exterior.

Let us hope that a competition more in harmony with the habits of the professors and the pupils will be tried next year. Certainly this would cause fully as much pleasure to the Americans as such a caricature upon their work, and it would better fulfill the intention of the ex-pupils of the United States.

A NOVEL COMPETITION.

The official organ of the Central Society of Architects, and under the patronage of the most distinguished architects of France, *L'Architecture* has recently opened a rather novel competition. This journal rarely contains any illustrations, being composed, as the committee state, of papers written gratuitously by the highest talent of France, but the desire is to enliven the text with some vignettes. The programme includes three classes, headings, tail pieces, and ornamental capital letters, all to be executed with pen and ink ready for reproduction. These need not necessarily always be exact vignettes: a balcony in wrought iron, a carved beam, a cornice, a vase, a fragment of tapestry, or painting, in fact any material or any object; historical subjects, landscape, inanimate nature, may all be subjects for a composition, since the society has no other artistic motto than "the true, the beautiful and the useful." With such an extensive field there certainly should be no lack of competitors.

Each competitor has the right to submit ten designs, and the prizes are to be forty in number, each a silver medal. As for the jury to decide this competition, the journal says: You will all, dear young comrades, on account of your talents, be one day called to judge others, and not to be judged by them. Starting upon this basis, as ingenious as evident, we desire that the competitors shall themselves be the judges. Accordingly, all the designs will be numbered and exhibited at the society's rooms. There will be one hundred, two hundred, no matter how many. It is only necessary to pick out the best forty, and to class the remainder in order of merit. Each one of the competitors after having seen and examined will make out a list of the forty numbers that appear to him the best.

THE PRACTICE OF ARCHITECTURE IN ITALY.

M. Hermant, who was sent to Italy to study the legal conditions under which architecture is practiced in that country, says *La Construction Moderne*, has just published his report, and in this document the following questions are considered:

First: Is the practice of the profession of architecture perfectly free in Italy, or is it on the contrary subject to governmental rules? If any regulations exist, what are they?

Second: Are architectural courses of study conducted with the ultimate end of obtaining a diploma, or some sort of a certificate of capacity? If so, is any such document obligatory for those practicing the profession?

A summary of the results obtained by M. Hermant relative to first question is shown by the following quotations: At Palermo, to practice architecture a diploma is absolutely obligatory, and those who practice without it do so illegally. A list is made out by the city authorities, and no one can be put upon that list without presenting his diploma of architect. At Naples, the profession is not free, as a matter of fact, although the law will not prevent anyone from building for himself or for others a house or a store house, but strict laws prohibit the employment of architects without diplomas in all work of the city or government, or as acting as experts, or as testifying as experts before courts of justice, etc. As a result the public in general think that a diploma is a guarantee of ability, and, in fact, without such a degree it is almost impossible to be anything more than a general contractor. At Rome, a diploma obtained from some engineering school is required, and for work in any of the adjoining villages it is necessary to show the diploma at the town offices where it is duly enrolled. At Milan, legally speaking, the practice of the profession of architecture is not free, and one must have a diploma of architect or civil engineer obtained by course of study at Rome, Naples and certain other designated institutions.

Thus one might say that in no part of Italy is the practice of architecture free, and the authorities demand of those who wish to practice, the diploma; however, this rule is not very strictly applied, except in the case of all public works, and anyone can, as a rule, without being the possessor of any diploma, construct for himself or for others without positive infraction of the law. In this case common custom strengthens the law, since the public considers the diploma as a guarantee, and anyone who does not possess it stands but small chance of becoming more than a contractor. As a result of both law and custom, it may be considered that for the Italian architect a diploma is in fact obligatory, since without it they are not eligible to take charge of any state, municipal or town work, nor can they serve as legal experts in any cases.

The diploma is granted by several institutions of learning located in the larger cities of the kingdom, and the courses of study are very nearly the same in every case. Take for example the city of Naples; here the course consists of the lower grade of three years and the upper of four years, making a total of seven years. In the lower grade, plane and solid geometry, algebra, elements of descriptive geometry and trigonometry are the mathematics; while physics, Italian literature, general history and elements of chemistry are the general branches, to which are added the strictly technical ones of modeling, drawing, study of the human figure and of ornament, together with the orders of architecture and their application. In the advanced course are found higher descriptive geometry, graphic analysis, applied chemistry, mineralogy and geology, theory and application of mechanics, elements of the styles of architecture, application of perspective to details of architecture, interior decoration, history of art and architecture, exercises in the restoration of antique monuments, technical architecture, iron construction, and questions of law and legislation.

Let our French architects consider such a course of study; undoubtedly they will find it more suitable for the formation of engineers than of architects, as they are understood with us; but a happy mean between the technical ignorance upon which the Ecole Des Beaux Arts is too often inclined to pride itself and the pure science of the civil engineer would unquestionably be a proper and desirable course to follow.

ERECTION OF PUBLIC BUILDINGS.

ON April 14, 1892, Mr. Tarsney, from the Committee on Public Buildings and Grounds, of the United States House of Representatives, submitted the following report upon the erection of public buildings:

THE REPORT.

The Committee on Public Buildings and Grounds, to whom was referred House bill 261, make the following report, and submit the accompanying substitute for said bill, and recommend the passage of the same for the following reasons:

The United States government has at this date nearly three hundred public buildings in the various stages of progress, of planning and construction, all under the supervision and control of the supervising architect of the Treasury, and from fifty to sixty new buildings are authorized to be constructed by each congress. To carry on these works and to provide for the construction of these buildings, many millions of dollars are annually appropriated and expended. For the expenditure of the moneys thus appropriated, as for the expenditure of moneys appropriated for any other public purpose, methods should be adopted which will secure the largest degree of utility from and economy in the application of the moneys expended. Your committee do not believe that these results and other beneficial results that should be obtained are obtained under the existing methods for planning and constructing the public buildings of the United States.

While the employment of the best artistic thought, the best and most approved systems of construction and equipment, and the utmost development of structural economics ought to be represented in the public edifices of this great nation, the contrary of these propositions is the result obtained under existing methods.

Your committee are advised that the best and highest types of artistic thought and architectural skill, producing the greatest development of structural economics in European countries is found in the government buildings of those countries; that such government buildings in artistic design, if not in economy of construction, surpass those erected by municipal or private enterprise, while in this country the reverse is the rule, and superiority of architectural design and economy of construction is represented in state, municipal and private buildings, and not in those erected by the general government.

A comparison of modern municipal buildings in our great cities, and business buildings erected by private citizens and corporations in such cities, with those belonging to the government of the United States, will show as to the former constant progress in construction, equipment and artistic expression, and that this progress has been accompanied by a continual increase in economy of construction, while in the case of the buildings of the United States there has been but little, if any, advance upon methods of construction or equipment in recent years; in fact, the buildings constructed recently by the United States as compared with those constructed a quarter of a century ago show a marked deterioration of artistic quality; that, despite the marked inferiority of the typical government buildings, the cost has been relatively and positively much greater than that of private buildings of the best type.

Your committee has been furnished reliable and trustworthy information and data showing that the cost of the best types of buildings constructed for states, municipalities, corporations, and private citizens ranges from 38 to 50 cents per cubic foot of space, while the cost of the buildings constructed by the United States ranges from 50 cents to $1 per cubic foot.

Thus it is demonstrated that the goverment of the United States, in the methods it employs, does not avail itself of the best and most approved systems of construction or utilize the developments of structural economics, and when we add that it does not employ the best artistic thought in the design of its structures to make such structures to serve as models and standards of excellence and superiority for the works of private ownership, but that such designs and plans fall so far behind the standards of the age that they are obsolete almost before they are drawn, and are always wasteful and extravagant, it is not surprising that it requires double the expenditure by the government that is required to be expended by the private citizen to obtain like structural space results.

The conditions and results to which your committee thus call your attention are the conditions and results which necessarily follow the methods and practices now employed by the government in planning and constructing its buildings, and in no respect gives warrant for criticism of, or for impugning the capability or integrity of, the officers of the government charged with the responsibility for such works.

The office of supervising architect of the Treasury was established at a time when but a few buildings were constructed by the government annually, when the planning and general supervision of such few buildings was easily within the scope of the capacity of one man, and the purpose of the government in creating the office was to obtain the exclusive benefit of the artistic skill and scientific knowledge of one learned and eminent in the profession of architecture for the planning of the buildings to be erected for its use. The main purpose in the creation of the office was that its incumbent should be the artistic designer of such buildings.

If by the development of conditions, methods, and practices it now transpires that the time of the supervising architect is wholly employed in matters of administrative detail, matters pertaining to contracts for construction or with details relating to the actual construction of buildings, and the architectural work of the office, the plans, designs, and specifications are prepared by mere copyists, cheap clerks, such was not the intention of congress when the office was created. It was to obtain architectural skill in the designing of buildings; to obtain and utilize artistic thought, not mere mechanical or clerical skill, that a supervising architect was wanted. It was not intended that, as now, clerks and copyists should do the work of the learned architect, and that the learned architect should be occupied with the work of clerks and copyists. Yet this is the present condition of the conduct of the work of that office, and it is necessarily so. It need not be urged that it is physically impossible for one man to devote sufficient thought and time to the proper designing and preparation of plans and specifications for fifty or sixty buildings each year, which in their artistic expression shall be creditable to the nation, to the age, and to the architectural genius of the country, and that, in the economy of construction, shall do justice to those from whom the cost of such construction is drawn.

How much of the time of the supervising architect may be devoted to the work of designing and preparing the plans for buildings may be conjectured when the amount of administrative work devolved upon him under the present methods is understood. The volume of work thrown upon him relating to repairs, maintenance, and alterations of existing buildings alone is far greater than was the entire business of the office twenty-five years ago. In addition, every matter of detail relating to contracts for or the construction of new buildings, the appointment of and correspondence with local superintendents of such buildings, has to receive his personal attention as well as the administrative control of the large force of employés in the office. The supervising architect cannot himself design and make original plans for each new building. This condition necessitates that the plans and specifications must be prepared by clerks in the office who possess no architectural skill or learning, and this results in the production of plans and specifications by the simple system of copying the drawings and specifications of a structure constructed in one locality to be used as the design for another in a different locality, and this regardless of the difference in geological or atmospheric conditions or space requirements, this resulting in the most wanton wastefulness of expenditure and absolutely precluding the possibility of progress in architectural design.

The supervising architect rarely ever sees one of these buildings while in course of erection. Its construction is generally under the supervision of some local carpenter or builder who never made any pretense to architectural knowledge or study, and whose appointment was secured, not because of his skill or knowledge of the work, but because of the political influence he could marshal to secure him employment, and whose greatest solicitude is to prolong the tenure of his employment by delaying the completion of the work.

Another very serious evil resulting from the system and methods now employed relating to the construction of public buildings, to which the committee would call your attention, is the length of time required to construct and complete one of these buildings. A building which, if the property of a private citizen would be constructed in months, when erected by the government requires years for its completion. This necessarily results in great wastefulness and loss of money to the government by the payment of unnecessary salaries of superintendents and other agents, by the expense of watching and caring for the materials and structure, and by the loss, waste and deterioration of such material, besides the inconvenience to the citizens resulting from such delayed construction. From three years upward is the time employed in constructing a building that a private citizen or a corporation would complete in one building season.

As an illustration of the extent to which this evil may extend under present methods, your committee would call your attention to the last annual report of the supervising architect in relation to the public building at Detroit, Mich., where the construction was authorized eleven years ago, and $1,300,000 therefor has been appropriated by congress, years since, and the foundation walls are not yet completed. Indeed, the abuses in the method above referred to have become so serious that the committee cannot conscientiously recommend public buildings at many places where the economical and convenient transaction of the business would require or justify such buildings could they be provided at a cost not greatly exceeding the necessary expenditure by a private owner for similar purposes. Of the bills reported from this committee during the present session many are so reported only on the assumption that the buildings contemplated can be erected under some plan less wasteful than that now in operation.

The scope and purpose of the measure herewith presented is designed to remedy the many evils herein pointed out. To give to the country a better type of architecture in its buildings, and to stop the wasteful extravagance that is the necessary result of the present methods, a system that is universally approved by the best business men and by the best-managed corporations of the country, should be a good system for the government if its adoption is practicable. This measure authorizes the employment of such approved system. It authorizes the secretary, in his discretion, to obtain plans and specifications and local supervision for its public buildings by the system of competition among private architects. While not mandatory, it authorizes the secretary to employ the architect whose plans are approved to superintend the construction. It is to be presumed that this will secure the best architectural ability in the formulation of plans and the construction of the work according to such plans; that the compensation of such architects will be derermined, as in private employment, on fixed commission upon the cost of the work, and that this will secure speedy completion of the work.

The measure does not abrogate or take from the supervising architect any of the functions or authority belonging to the office

which, under existing conditions, he is capable of performing. He will still, as now, retain general supervision and control of the work. He will remain and continue the representative of the government in all matters connected with the erection and completion of the buildings, the receipt of proposals, the award of contracts therefor, and the disbursement of money thereunder, and perform all the duties that now pertain to his office, except the designing and preparation of drawings and specifications for such buildings, and the local supervision of the construction, and such drawings and specifications shall be subject to his approval and to modification by him.

In fact, this measure is intended to make him what the title of his office indicates, the supervisor of architects; not the government's architect, but the supervisor of the architects of the government's works.

Your committee therefore recommend that the accompanying substitute do pass.

EFFLORESCENCE ON BRICKWORK.

THE white, semi-crystalline powdery efflorescence that appears on new bricks after being placed *in situ* has engaged the attention of builders and experts for a considerable time; nevertheless, no rapid effectual remedy has yet been promulgated for preventing the unsightly white patches appearing on a newly-erected wall. The result of some experiments the writer (Mr. H. C. Standage in *The Builder* for April 23, 1892) has conducted during the last twelve months may be of value to all builders, as the writer believes he has found the true remedy for the effectual removal and permanent prevention of this disfiguring efflorescence.

In the first place, a few words on the probable causes of the white appearance may not be out of place.

Bricks are naturally porous, and therefore readily imbibe moisture and gases. The mortar in which they are set contains two very active ingredients for the incipient evolution of organic life and crystalline formation of mineral substances, namely, oxygen and lime (an oxide of calcium). The yellow or red color of the sand mixed with the lime in the preparation of mortar is due to the presence in varying quantities of oxide of iron. This salt — oxide of iron — is one that readily gives up a part of its oxygen to any suitable body with which it may be in contact, or it readily acquires a further proportion of oxygen from the air if placed under suitable conditions. The lime also is a body in which the union of the metal (calcium) with the oxygen is not very permanent, the metal uniting with any other suitable compound substance, as, for example, carbon from the air, to form carbonate of lime — a combination of calcium, carbon and oxygen, $CaCO_3$, which is a body that is also unstable in composition, readily breaking up and forming new combinations or salts of other metals. Besides the sand — silica colored with oxide of iron — and the lime, there are present in mortar small portions of other bodies, notably sodium salts of some kind. Now sodium (Na) unites with oxygen to form soda (Na_2O), and also with the iodide CO_2 (carbon dioxide) to form carbonate of soda, Na_2CO_3. (There are several other formulæ for this salt, as it varies in the proportions of its constituents, but the above simple form will do for our purpose.) Now, carbonate of soda can exist in the crystalline form when water is combined with it, or it can be a dry anhydrous powder; and this salt when it loses the CO_2 radical becomes Na_2O (oxide of sodium of soda), and if the elements of water have been present in the carbonate, a deliquescent salt, sodic hydrate (NaHO) can be formed. Without going further into chemical questions, deliquescent is applied to a body capable of imbibing moisture, and hence becoming semi-liquid. Suffice it to say that it is with the salts of soda we purpose to deal.

Let us imagine that the soft porous brick has imbibed water from a passing shower of rain, that it dissolves some of the sodium salts in the water, and thereby becomes impregnated with a solution of a salt of soda. Now, as the surface of the brick dries, this salt of soda, or hydrate of sodium, will become dry and converted into the anhydrous sodic oxide (Na_2O) (every one has seen a piece of ordinary mortar crystallized, and washing soda fall to a white powder after some day's exposure to the air) if the weather be dry. This is the white efflorescence that appears on the surface of the brick. If the weather be damp, it will not be positively dry (anhydrous), but appear in minute crystals (as a crystalline carbonate?). In any case, there the white efflorescence is, and it is a positive eyesore to every builder, for the white patch on the surface of the newly-built wall spoils all architectural beauties by its glaring whiteness and irregular patches. So long as any soluble salts of soda remain in the mortar to be dissolved out by the water imbibed by the porous brick, so long will this white efflorescence continue until the supply of soluble soda salt has been dissolved out and brought to the surface.

The nearest approach to a successful remedy the writer has come across among the various proposals for removing this disfiguring white efflorescence is hydrochloric acid (HCl). This liquid combines with the Na_2O to form water and chloride of sodium (namely, $2\,HCl + Na_2O = H_2O$—water$+ 2NaCl$, sodic chloride, i. e., common salt).

As this sodic chloride that is formed is a soluble salt, its presence is not manifested, as it is soluble in water, and, therefore, washed away by every shower of rain. If the efflorescence is due to the presence of NaHO (sodic hydrate), the hydrochloric acid will form sodic chloride and water as before, only half the quantity of acid being required to effect the reformation of salts. The remedy, therefore, would seem to point to saturating the bricks with this acid — a process that, however, would be expensive and dangerous to the workmen using such fluid.

Acting on the hint conveyed by the fact that the excess of sodic hydrate in soap-making is expelled from the soap by salting it — i. e., strewing the surface of the soap as it floats on the lye with common salt, i. e., sodic chloride — the writer applied a solution of common salt to the white efflorescence on some bricks that were badly stained therewith. In every instance where such fluid was applied the white efflorescence was instantly removed, and, what is more has never reappeared, and in obstinate cases three applications, or one application well saturating the bricks with the common salt solution, has sufficed to effect the desired result.

The chemical reaction that takes place is represented below:—

NaCl (common salt) + NaHO (sodic hydrate) produce Na_2O (sodic oxide) and HCl (hydrochloric acid). Now, theoretically Na_2O is the body we wish to expel or convert into something else, and therefore we are actually forming the body we are endeavoring to expel, and, *ipso facto*, the acid would be the best body to effect the desired result. One fact, however, stands strongly in evidence against such theory, and that is the remarkable non-appearance of the white efflorescence after the application of the salt solution. This may be accounted for by the fact that the combination between the hydrogen and chlorine (HCl) is stronger than between sodium and chlorine (NaCl), and therefore the chemical reaction represented above as occurring between the efflorescent and acid occurs only to a limited extent; whereas in the application of the sodic chloride (NaCl) solution, the chlorine in the sodic chlorine readily forsakes that body to unite with the hydrogen (H) in the sodic hydrate, and that, although sodic oxide is formed thereby, the simultaneous production of hydrochloric acid also neutralizes the effect of the sodic oxide effloresing. As a solution of common salt is much cheaper than hydrochloric acid, the writer would suggest that the bricks should either be dipped in a pail of such solution before being laid *in situ*, or else be well washed — impregnated — with it afterward.

NEW PUBLICATIONS.

A TEXT-BOOK on Retaining Walls and Masonry Dams, by Mansfield Merriman, Professor of Civil Engineering in Lehigh University. Price $2. New York: John Wiley & Sons.

"CHRISTIAN THOUGHT IN ARCHITECTURE" originally a paper read by Mr. Barr Ferree before the American Society of Church History at its annual meeting in Washington last December, has been privately printed and distributed. It is illustrated with a sketch of Reims Cathedral and an interior from the cathedral at Chartres, and, with its white cover and untrimmed edges, makes a dainty and attractive pamphlet.

"SOME RECENT PUBLIC 'RAIN' BATHS IN NEW YORK CITY," is the title of a small pamphlet by William Paul Gerhard, C. E., and published by the Engineering Press, 277 Pearl street, New York. As may be supposed, the text matter refers to the construction and mode of operation of these douche baths, and their general, practical and economical utility in the light of a cheap, public lavatory. The introduction treats in a historical way, of the beginning and growth of this peculiar bathing method in Europe, and of its first trial in this country. The price of the pamphlet is 50 cents.

WATER AND AIR CIRCULATION IN HEATING AND VENTILATING. A technical description of the Novelty Hot-Water Circulator, with a chapter on "Circulation" and illustrative examples, together with numerous rules, tables and formulæ, useful for steamfitters, engineers, architects and others. Abram Cox Stove Company, Philadelphia.

This is a large quarto book of 112 pages, and although primarily a trade catalogue, it contains so much desirable and valuable scientific and technical information that that characteristic is measurably forgotten in an investigation of the systematically arranged contents. House heating and ventilating, in a limited sense, is so new a field of house economics, that advances are constantly being made and new forms introduced, thereby enlarging scientific knowledge and technical skill, so that every new publication on the subject is naturally expected to add something more that is needed to present knowledge. In this respect this book will not be a disappointment. The introductory chapter on "Circulation," wherein is discussed those important factors, transference of heat, cause of circulation, value of circulation in heating water, advantages of independent circulation and kindred topics, is from the pen of Mr. John J. Hogan, an engineer and author whose writings on questions pertaining to these matters are accepted as highest authority, and is particularly instructive and interesting. The same may be said of a subsequent chapter by the same author on the "Supply and Emission of Heat." There are other important points discussed in chapters under appropriate heads, which space will not permit more than a mention of the fact, and a large number of comparative tables prepared as helps to estimating that for the same cause cannot be specifically named. One peculiar feature of the book and a novelty in the way of diagram illustrations is a series of diagrams illustrating practical work in instances of a constructed cottage residence, suburban mansion, city residence, railway station, church and school, where the method and manner of the service is made distinct by printing the apparatus, piping, etc., in red outlines, and to a scale that makes each an easily comprehended lesson. In a word, this book is undoubtedly one of the most exhaustive treatises on house heating and ventilation that so far has come from the press, and is an invaluable contribution to modern architectural literature.

OUR ILLUSTRATIONS.

Residence of I. K. Boyesen, Chicago; Willett & Pashley, architects.

Residence on Lindell boulevard, St. Louis, Missouri; Theo. C. Link, architect.

Manufacturing building for C. H. Fargo & Co.; L. B. Dixon, architect, Chicago.

Sketches by T. O. Fraenkel, Chicago: a windmill, General Washington chair.

Cottage at Council Bluffs, Iowa, for Mrs. D. B. Sutherland; J. Hackett Kent, architect.

"The Homestead" Hotel, remodeled, Hot Springs, Virginia; G. W. E. Field, architect.

Schoolhouse at Canandaigua, New York; Orlando K. Foote, architect, Rochester, New York.

Residence at Fond Du Lac, Wisconsin, for Mr. Ebert; A. M. F. Colton & Son, architects, Chicago.

St. Paul's Episcopal Church, New Orleans, Louisiana; McDonald Brothers, architects, Louisville, Kentucky.

Colorado State Building, World's Columbian Exposition, Chicago; H. T. E. Wendell, architect, Denver, Colorado.

Burlington Insurance Company Block, Burlington, Iowa; W. L. B. Jenney and W. B. Mundie, architects, Chicago, Illinois.

World's Columbian Exposition, Chicago. General view of court from the Administration building, looking toward lake.

The Wainwright Memorial, St. Louis, Missouri; Adler & Sullivan, Chicago, and Charles K. Ramsey, St. Louis, associated architects.

New court house, Rome, Georgia, to be built of Georgia marble by the Blue Ridge Marble Co.; Bruce & Morgan, architects, Atlanta, Georgia.

Architectural plate case to hold from 8,000 to 10,000 plates. Has been in use for some time and found very convenient. Designed by Will L. Fuchs, architect, Buffalo, New York.

Richardson, Roberts, Byrne & Co., wholesale dry goods house, St. Joseph, Missouri; Eckel & Van Brunt, architects. The material is Portage stone and St. Louis press brick. Dimensions, 90 by 135 feet, 2 inches. Construction: Mill or slow combustion; two elevators; boiler-room, vaults and stairways outside the building. There is a clear floor space, exclusive of the interior columns, twenty-eight in number, of about 88 by 133 feet, average. The foundation of the building is well under way.

Photogravure Plate. Residence of H. A. Knott, Buena Park, Chicago; J. L. Silsbee, architect. Residence of R. Conklin, Kansas City, Missouri; Van Brunt & Howe, architects.

PHOTOGRAVURE PLATES.

(*Issued only to subscribers for the Photogravure edition.*)

Residence of Col. W. R. Nelson, Kansas City, Missouri; Frederick E. Hill, architect.

Church, Sixteenth and Holmes streets, Kansas City, Missouri; Hogg & Rose, architects.

The Lombard Residence, Kansas City, Missouri; Burnham & Root, architects, Chicago.

Residence of C. F. Morse, Kansas City, Missouri; Peabody & Stearns, architects, Boston.

Residence of W. C. Scarette, Kansas City, Missouri; Burnham & Root, architects, Chicago.

Residence of Charles Mendenhall, East Walnut Hills, Cincinnati, Ohio; A. O. Elzner, architect.

Groups of statuary for Administration and Agricultural buildings, World's Columbian Exposition, Chicago; Carl Bitter and Philip Martiny, sculptors; two subjects.

ASSOCIATION NOTES.

CINCINNATI ARCHITECTURAL CLUB.

The Cincinnati Architectural Club held a reception in its new rooms on May 6, in celebration of its fourth year of work and general prosperity. The reception was attended by the largest and most enthusiastic gathering ever received by the club. The rooms were decked with flowers, an orchestra discoursed music of an exhilarating character, the efforts of the caterer supplementing the music in a substantial manner. In fact a degree of enthusiasm was generated that will not soon effervesce.

After the reports of the different officers had been received the club proceeded to the election of officers for the ensuing year, which resulted in the election of John Zettel, president; L. G. Dittoe, vice-president; M. S. Heister, secretary; E. Burt, treasurer; and H. Hake, member of executive committee.

The following code of competitions has been prepared for the coming year: 1, park shelter house; 2, sheet of local renaissance; 3, enter the Clark competition; 4, bookcase; 5, suburban residence; 6, stone entrance including a fountain; 7, inglenook; 8, village school and library. All of these have certain conditions under which they must be entered. The dates have not been decided upon, owing to the fact that the club has not been informed when the "Clark medal competition" is to be closed.

Mr. J. Zettel was the winner of last year's prize, he having secured the highest number of points on all competitions.

THE AMERICAN SOCIETY OF IRRIGATION ENGINEERS.

At the close of the Irrigation Congress in Salt Sake City on September 18, 1891, a few engineers who were delegates, were called together by Prof. L. G. Carpenter, of Colorado, who suggested the organization of a Society of Irrigation engineers.

A meeting was held during the evening at the rooms of the Polytechnic Society of Utah. Little time or opportunity was afforded for details of organization. Officers were, however, elected, and the Board of Directors was instructed to draft a constitution and by-laws and send it to the members for suggestions and additions. A few hours of rather informal discussion brought out the ideas of those present, as to the aims of such a society.

It seemed evident to all that an organization of men interested in the physical problems of the arid regions, would be of benefit to its members, and also that an organized body of skilled engineers with experience in the peculiar work of arid land reclamation was almost a necessity, not for the increase of their own knowledge only, but far more for the security of those investing their time or money in reclamation or irrigation works.

There will be one annual meeting of the society, and it is hoped that there can also be one meeting each year in San Francisco, Denver, Salt Lake, and possibly in other cities north or south. At these meetings papers will be read and discussed in the usual manner. Arthur D. Foote is the president.

CORRESPONDENCE.

A EUROPEAN TOUR.

Editors Inland Architect: Through your courtesy last February mention was made in THE INLAND ARCHITECT of a tour on bicycles through the château region of France, on which I am anxious to have a party of twenty of my brother wheelmen. Since then my call for companions has met with a hearty response, and the party is being completed with gratifying rapidity. We now have representatives from Milwaukee, Wis., Providence, R. I., Quincy, Ill., Philadelphia, Pa., Boston, Mass., New York City, and various other places.

The T-Square Club, of Philadelphia, will be well represented, also the Architectural Sketch Club, of Boston. The Massachusetts Institute of Technology and Cornell University are both to send students from their architectural departments.

I am in hopes that the Chicago Architectural Sketch Club and Indianapolis Architectural Sketch Club will be represented, and should this meet the eye of the members of either of said clubs, I trust they will take this as an invitation to join one of the pleasantest parties that ever crossed the Atlantic.

This invitation is also extended to all architects who would enjoy our way of traveling.

I have secured the most comfortable berths on S. S. Veendam, just forward of the dining saloon, and have the refusal of all the staterooms in that part of the boat.

We sail July 30. I shall be pleased to send full information to anyone who so desires. Very truly yours,

Portland, Maine. JOHN CALVIN STEVENS.

Editors Inland Architect: CHICAGO, April 29, 1892.

Information has already been published that the current exhibition of the Chicago Society of Artists was destroyed by fire upon the evening of Tuesday, April 26. The collection was exhibited in the top floor of a seven-story building, called the Chicago Athenæum, which had no pretensions to being a fireproof building. For the credit of Chicago it should be clearly understood that the exhibition had nothing to do with the Art Institute of Chicago, and the fire was not in the museum building.

Yours very truly,

W. M. R. FRENCH, Director.

BUILDING OUTLOOK.

OFFICE OF THE INLAND ARCHITECT,
CHICAGO, Illinois, May 15, 1892.

The downward tendency in prices and values has not yet reached its limit. There is a hesitancy among builders, promoters, contractors, manufacturers and money lenders to push work, except where the requirements are urgent and well defined. A number of contingencies are recognized as likely to arise during the next two months which will affect the situation favorably or unfavorably. One of them is the possibility of strikes more or less general. At some eastern points rumors have arisen within the past few days of the possibility of disturbances among laborers about the middle of the month. This may disappear; there is, however, a feeling of unrest. Regarding the probable volume of this year's construction, it is impossible to speak with any degree of definiteness; the inducements to build are not as urgent as two years ago. In the larger cities a good deal of work will continue to be done, but speaking generally it is not probable that in the larger cities throughout the East the volume of business will be much, if any, in excess of last year. With regard to the cities throughout the West, it is probable quite an increased activity in general building will take place during the next four or five months. Building material of all kinds is low in price. Contracts for large supplies have been made within the past week or two at figures favorable to builders. Manufacturers of all kinds of material complain of the very narrow margins existing, and naturally hope for improvement, but it is hardly probable that the improvement, if it does come, will come in time to profit them much. Lumber is very abundant and low, but the white pine and yellow pine interests are pretty well organized, and competition will be kept within some sort of bounds. All kinds of hardwoods are selling at as low prices as have prevailed within a year. Iron and steel are low and abundant. The small industries are prosperous, though an over-supply is constantly threatened. The manufacturers of machinery complain of a lagging demand, but while it exists the falling off has not yet reached very serious dimensions. In the financial world money is said to be abundant, but this must be understood as applying to financial

centers, and to large dealings; there is not an abundance of money throughout the country among the small business men. Collections are difficult, and it requires careful management to keep even.

Our export trade in cereals, breadstuffs and machinery continues quite heavy, and prices are maintained at what are regarded in trade circles as satisfactory. Throughout the South there is continued depression. Through the West opportunities are multiplying for investment. Land has been taken up pretty freely, and so far as can be seen at this time, the present season will be one of great activity.

SYNOPSIS OF BUILDING NEWS.

Architects are invited to furnish for publication in this department monthly or occasional reports of their new work before the letting of contracts. Reports of buildings costing less than $5,000 are not published.

Albuquerque, N. M.—Architect H. D. Johnson: For Charles Mansard, a two-story brick residence, size 38 by 53 feet; cost $8,000. For Public School Board, a two-story brick schoolhouse, size 86 by 48 feet; cost $12,3000. For E. J. Post & Co., a two-story brick warehouse, size 50 by 136 feet; cost $8,000.

Chicago, Ill.—Architect Francis M. Whitehouse: Is working on plans for the remodeling of the Art building into a suitable home for the Chicago Club; in the transformation the exterior of the structure will be left as it now stands, it being so beautiful it would be a pity to mar its architectural effects; new plumbing, steam heating, electric light and the best of improvements will be put in. The same architect is preparing drawings for the Choral building for the World's Fair; it will be the same in construction as the other buildings, and will be located between the Transportation and Horticultural buildings; it will be 160 by 280 feet in size, and cost about $125,000; accommodation will be provided for 10,000 people.

Architect H. B. Wheelock: For James Madden, on Indiana avenue near Forty-eighth street, a two-story flat building; to have a stone front, hardwood finish, and cost $7,000. For Mrs. Flora Dodson, on Prairie avenue near Forty-second street, two three-story and basement residences; to have stone fronts, hardwood finish; cost $15,000.

Architects Flanders & Zimmerman: For C. Patterson, at 2132 Michigan avenue, a three-story and basement store and flat building; to have pressed brick front, with copper bay windows, hardwood interior finish, steam heat, and all the improvements. Also preparing plans for a two-story basement and attic school, 87 by 117 feet in size; to be erected on Wood and Seventieth streets; pressed brick, stone and terra cotta, copper bays, hardwood finish, steam heat. For Mr. Hammill, at Fifty-eighth street and Madison avenue, a three-story flat building, of pressed brick and stone, with copper bay window, hardwood finish, steam heat, electric light. For E. E. Hudson, on Thirty-first street, between Wabash and Michigan avenues, a four-story and basement store and flat building, of pressed brick and stone, with copper bay windows, steam heat, hardwood finish, the best of plumbing; cost $40,000. For Mr. Stafford, on Reynolds avenue near Seventy-eighth street, a two-story and basement flat building, of pressed brick, stone and terra cotta front, galvanized iron bays, etc. For C. Matthews, on Kenwood avenue near Forty-ninth street, a two-story residence, 35 by 60 feet in size, of pressed brick and stone front, steam heat, hardwood interior finish; cost $15,000. For City of Chicago, a one-story and basement school, 23 by 80 feet in size, to be constructed of pressed brick, stone and terra cotta.

Architect J. A. Miller: For the Arcade Company, a three-story store and flat building, 66 by 266 feet in size, to be erected on Thirty-sixth street and Cottage Grove avenue; to be of pressed brick and stone front, have gravel roof, the best of plumbing, electric wiring, steam heat, etc. For Mrs. B. Hogan, on Sawyer avenue near Ogden avenue, a three-story flat building, of buff Bedford stone front; to cost $10,000.

Architects Hyde & Castner: For Charles City Board of Education, a two-story school, to be constructed of common brick and stone, have heating and modern conveniences; cost $9,000. Also making plans for two frame residences, to be built at the same place, for Mrs. Tower and C. D. Ellis.

Architect Jules De Horwath: For W. A. Dougherty, on Woodlawn terrace, near Midway Plaisance, a six-story apartment house; size 40 by 90 feet; to cost $75,000; to be of pressed brick and stone front, have electric light, steam heat, elevator, marble work and the best of modern sanitary improvements. For Dr. F. M. Stringfield, corner of Twelfth street and Wabash avenue, an eight-story store and apartment house; size 50 by 110 feet; to cost about $150,000; it will be constructed of stone up to the second story and above this will be of pressed brick with stone trimmings; electric light, elevators, steam heat, marble wainscoting, mosaic and tile floors, etc. For Mr. Groesbeck: Preparing drawings for a four-story store and apartment house; to have a stone front with copper bay windows, hardwood finish, etc.; to be erected at 344 Madison street. For G. R. Wright and others: Four two-story basement and attic residences; to be erected at Edgewater; to be of frame with stone basements, have hardwood finish, electric wiring, the best of plumbing, furnaces, etc. For a syndicate: A six-story apartment house; size 150 by 100 feet; to be erected at the corner of Forty-ninth street and Michigan avenue; it will be of pressed brick with stone trimmings, have hardwood interior, electric light, steam heating, elevators, marble, mosaic and tile work; and cost about $200,000. For a local syndicate: A five-story apartment house; size 60 by 131 feet; to cost about $150,000; it will be constructed of pressed brick and stone, have electric light, steam heat, elevator and all the improvements. He is also getting out drawings for a four-story apartment house; to have a frontage of 150 feet and a depth of 100 feet; to be erected on Wabash avenue, near Thirty-fifth street; to have a pressed brick and stone front, steam heat, electric light, etc.

Architects Wilson & Marble: For George C. Watts, on Grand Boulevard and Forty-fourth street, two three-story residences; to cost $16,000 each; one will have a brownstone front with Spanish tile roof, and the other a handsomely designed front of Kasota pinkstone and roof of Spanish tile; the interiors will be finished in hardwoods, hot-water heating, electric light, gas ranges, fireplaces, and the very best of sanitary and modern conveniences will be put in. For Albert Mendel they are also designing two handsome three-story residences; to cost about $32,000; they will have Kasota pinkstone and Raindrop stone for the fronts, slate roof, hardwood interiors, hot-water heating, electric light, etc. For Dr. O. A. Baxter, corner of Grand Boulevard and Forty-fourth street, a three-story and basement residence of beautiful design; the front will be of stone, the interior being elegantly finished in hardwoods and electric light, hot-water heating and the finest of sanitary and modern improvements will be put in; the cost will be $25,000.

Architect L. G. Hallberg: Preparing plans for a three-story residence; size 31 by 60 feet; to be erected on Michigan avenue, near Thirty-eighth street, for George A. Seaverns; to be of pressed brick and stone front with slate roof, have electric light, hot-water heating, hardwood finish, marble and tile work; and cost about $20,000. For E. L. Hambleton, at Buena Park, a two-story basement and attic residence; size 30 by 50 feet; to be constructed of buff pressed brick and stone, have electric light; and cost $8,000.

Architects Stiles & Stone: For J. F. Pershing, on Fifty-third street, west of Kimbark avenue, four three-story residences; to have stone fronts, slate roofs, copper cornices, hot-water heating, electric light, all the best of improvements; cost $34,000. They have also just completed plans for the First Congregational Church to be erected at La Grange; it will be constructed of stone all round, have stained glass windows, steam heat, and pews to seat five hundred persons. They will also build a two-story school with seating capacity of five hundred; cost $20,000. For Mrs. Elizbeth Taylor they are making plans for a three-story tenement; size 25 by 80 feet; to have a cut stone front, hardwood finish; cost about $10,000.

Architect W. D. Cowles: For E. D. Murray, on St. Lawrence avenue near Seventy-first street, a three-story apartment house; 72 by 86 feet in size; to cost $30,000; to be of pressed brick and stone front, hardwood interior finish.

Architect C. A. Weary: For John Brady, on Indiana street near Wood, a two-story barn; size 36 by 85 feet; to be of pressed brick and stone front, with gravel roof; cost $6,000. For John Coakley, on Colorado avenue, a three-story flat building; to have a stone front, hardwood finish, sanitary plumbing; cost $6,800. For P. A. Shriver, on Madison street near Sacramento avenue, a three-story and cellar store and flat building; to have a stone front, gravel roof, best of plumbing and cost $9,000. Also making plans for a two-story and basement flat building to be erected on Adams street near Francisco, for Rome O'Connell; to have a front of pressed brick with stone trimmings, gravel roof, sanitary plumbing, furnaces, etc.

Architect C. M. Palmer: Making plans for remodeling building at the southwest corner of State and Monroe streets.

Architect Julius Speyer: Making plans for three-story and basement store and flat building; to be of stone front with copper bay windows, hardwood finish, etc.; to be erected on Kedzie avenue near Thirteenth street, for George Nolan. For M. Kyle, on Seventy-first street and South Chicago avenue, a three-story store and flat building, to contain thirty-four suites of apartments, and cost $35,000; the front will be of pressed brick, with stone trimmings, gravel roof; sanitary plumbing and steam heat will be put in. Also making plans for remodeling building at 167 Madison street for M. McErnerny; fine plumbing, marble, tile and mosaic work, electric light, elevators, steamfitting, engine, pump, two boilers, etc. For Messrs. Lansing & McGarigle, at 126 Clark street, remodeling interior of three upper floors; will put in elevator, electric light, marble and mosaic work, etc.; cost about $15,000.

Architect George W. Maher: For J. L. Cochran, at Edgewater, three two-story and basement residences; to have stone basements, hardwood finish, furnaces, electric light, etc.

Architects J. F. & J. P. Doerr: For Meyer Louer, on Maryland avenue between Sixty-sixth and Sixty-seventh streets, a three-story flat building; size 50 by 76 feet; to cost $12,000; to be of pressed brick and stone front. For Patrick Walsh, on Thirty-seventh street near Wallace street, a three-story and basement store and flat building; size 24 by 70 feet; to cost $7,000.

Architect J. C. Swope: For A. Campbell, corner of Belden avenue and Larrabee street, a four-story apartment house; 60 by 100 feet in size; to cost about $75,000; it will be constructed of Lake Superior red sandstone on two sides, have slate towers and gravel roof, three copper bays, one galvanized iron; the best of plumbing; to be fireproofed and have steam heating and electric light. The same architect also making plans for a three-story store and flat building; 98 by 107 feet in size; to be erected at Sixty-fifth street and Cottage Grove avenue for F. C. Delamater; it will have two fronts of St. Louis pressed brick, with Bedford stone trimmings, steam heat, electric light, and all the conveniences.

Architects Jaffray & Ohrenstein: For Dr. Thomas L. Gilmer, at Lake Park avenue and Thirty-third street, a two-story residence; to have a buff Bedford stone front, slate roof, hardwood finish, hot-water heating. For Dr. William McCarthy, on Aberdeen street near Taylor street, a three-story flat building; to cost $12,000.

Architect George Grussing: For Martin Lewis, on Dunning street near Racine avenue, four two-story flat buildings, of pressed brick and stone, to have hardwood finish, all the sanitary improvements, furnaces; to cost about $16,000; working on plans.

Architect Ira C. Saxe: For J. R. Lyman, on Rhodes avenue near Washington Park, a two-story rockfaced stone front flat building. Also for the same owner, on Sixty-third street near St. Lawrence avenue, a three-story store and flat building, to be of pressed brick and stone front. For T. H. Marston, a three-story store and flat building, of rockfaced stone front, gravel roof, sanitary plumbing and furnaces.

Architects Parke & Purrssell: For E. Greenburg, on Jackson boulevard, between Sacramento avenue and Whipple street, a four-story flat building, to have redstone front with circular bay of stone, copper cornice, hardwood finish, steam heat, etc. For P. Smith, a two-story frame flat building, brick veneered; to have sanitary plumbing, galvanized iron bays, furnaces, etc.

Architects Fraenkel & Schmidt: For George R. Thorn, a three-story and basement store and flat building, 49 by 125 feet in size; to cost $25,000; it will have a pressed brick and stone front, and be erected on Fifty-fifth street and Wentworth avenue.

Architects Ostling Bros.: For Mrs. Muller, 200 East Huron street, a four-story and basement flat building, 21 by 100 feet, to be of pressed brick and stone with galvanized iron bays; cost $10,000. For Mrs. Wood, at 136 Sigel street, a four-story and basement flat building; to cost $10,000; to have a pressed brick and stone front, electric bells, speaking tubes, etc. For Charles Siebert, on Clark street, corner of Dewey Court, a three-story store and flat building, of pressed brick and stone front, with galvanized iron bays and coruice; cost $10,000.

Architect Charles S. Frost: For the Chicago & North-Western Railway Company, on Kinzie street, a two-story building, 240 by 35 feet in size, to be of pressed brick and stone front, with slate roof; when completed it will be occupied by the United States and American Express Companies. For the same company he is getting out drawings for a two-story electric light plant, 75 by 65 feet in size, with chimney stack 130 feet high, to be erected on Kinzie street and the river. For Thomas Foster, two three-story and basement residences, to be erected on Woodlawn avenue and Forty-seventh street; to be of pressed brick and stone front, with slate roof, hardwood finish; cost $20,000. For Messrs. Kuh, Nathan & Fisher, to be erected on the northwest corner of Franklin and Van Buren streets, a seven-story and basement store and office building; to have a frontage of 50 feet on Franklin, 50 feet on Van Buren, and a depth of 160 feet; the first story will be of stone, and the rest of pressed brick and stone; it will be of mill construction and practically fireproof; cost $150,000.

Architect George H. Borst: For M. L. Wheeler, on Woodlawn avenue between Forty-sixth and Forty-seventh streets, a three-story and basement residence, 35 by 65 feet in size; to cost $25,000; it will be of red Portage stone front, with slate roof and pressed brick sides; the interior will be handsomely finished in hardwoods, and have steam heating, electric lights, etc. For Miss Hundt he is preparing drawings for a three-story and basement flat building, to be erected on Garfield avenue; it will be constructed of pressed brick, with copper bays, have interior finish in pine, and cost $10,000. For John A. and George Lomax, on Adams street near Peoria, a two-story flat building, of pressed brick and stone. For Dr. E. C. Dudley, at 2112 Michigan avenue, remodeling building; putting in new store front, marble wainscoting, etc. Mr. Borst will remove this month into suite 1306, Chicago Title and Trust Building.

Architects Bettinghofer & Hermann: For Otto Stumf, on Perry street, Lane Park, a two-story frame residence. For John Muno, corner of North avenue and Town court, a four-story and basement store and flat building, of pressed brick and stone front, galvanized iron bay and tower; cost $13,000. For Casper Wiener, on Bosworth avenue, Lutz Park, a two-story frame residence. For Miss A. Ruhnke, on Davis street near Hirsch street, a three-story and basement flat building, of pressed brick and stone. For Joseph Lister, on Elston Road near Fullerton avenue, a two-story barn, of pressed brick all round; cost $10,000. For McWienand, on Ashland avenue near Belmont avenue, a three-story flat building of pressed brick and stone front. For Henry Kraüsslich, on the southwest corner of North avenue and Hudson avenue, a four-story store, flat and office building; 27 by 106 feet in size; to cost $20,000; it will have two fronts of pressed brick and stone, with galvanized iron bays, slate tower, hot-water heating, etc. For C. R. Williams, on the southwest corner of North avenue and Wieland street, a five-story and basement store and flat building; 50 by 116 feet in size; to cost $50,000; stone front and pressed brick on the side, galvanized iron bays, slate tower; the best of sanitary improvements.

Architect Robert C. Berlin: For S. Miller, corner of Webster avenue and Burling street, a three-story flat building, to have a stone front, and cost $14,000. For W. J. Lee, at 85 Seminary avenue, a three-story flat building; stone front; to cost $9,000. For F. L. Eckenbrecht, corner of Webster and Sheffield avennes, a four-story store and flat building of pressed brick and stone front; to cost $25,000.

Architect E. M. Newman: For J. F. Penfield, at Rockford, Illinois, three two-story frame houses. For John H. Camblin, at Rockford, a two-story frame residence. For J. Gottra, at Montrose, a two-story frame house. For Mrs. J. P. Harter, at Edgewater, a two-story frame residence. For Will Eckel, at La Grange, a two-story frame house.

Architect M. E. Bell: For J. F. Rice, a three-story residence, to be erected corner of Woodlawn avenue and Fifty-sixth street. It will be of pressed brick and stone, with hardwood interior, tile floors, steam heat and cost $20,000. For

B. F. Cronkrite, a two-story residence; to cost $12,000. For B. F. Cronkrite, on Berkeley avenue and Forty-third street, a four-story apartment house; 150 by 70 feet in size; to cost $70,000. The basement and first story will be of stone, and above of bnff pressed brick and terra cotta. He is also getting out plans for the state reformatory to be erected at Pontiac, Illinois. Also new hall for the Carleton club on Vincennes avenne.

Architects Edbrooke & Burnham: For Milo G. Kellog, corner of Jackson and Green streets, a two-story store and flat building of pressed brick and stone; to cost $20,000. For Charles Morris McCook, at Kenilworth, a two-story residence; to cost $10,000. For Mrs. Pratt, at Kenilworth, a two-story basement and attic frame residence; to have stone basement, hardwood interior finish, hot-water heating; cost $12,000.

Architect Francis J. Norton has completed plans, and is also supervising the following structnres: A four-story hotel, 110 by 174 feet in size, to be erected at Seventy-fifth street and Kinney avenne, for Mr. Gilbertson. It will contain six hundred rooms, with all modern improvements; estimated cost $50,000. Also a three-story hotel for C. Dorn, 60 by 100 feet in size, to be built on Seventy-first street near the Fair grounds, at a cost of $18,000. Also a three-story apartment bnilding, 25 by 60 feet in size, to be erected at Thirty-first and Arch streets, for Mrs. Van Buren, at a cost of $10,000. Also ten stone residences to be erected at Auburn for the Chicago Mill Construction Company, at a cost of $60,000. A three-story stone residence to be built at Forty-third street and Wabash avenue, for Mr. Parks; size 25 by 75 feet; with all modern improvements, at a cost of $10,000. Also a three-story and flat building to be erected at Sixty-third street and Cottage Grove avenue, for Mr. Rhodes, of Boston; size 50 by 100 feet; with all modern improvements, at a cost of $20,000. Also three honses, three stories high, to be erected at Fortieth street and Grand boulevard, for Mr. Hisgen, at a cost of $14,000. Also a block of residences 60 by 125 feet in size, three stories high, to be bnilt at Seventy-second street and Wentworth avenue, for John R. Dawson, with all modern improvements, at a cost of $30,000.

Cincinnati, Ohio.—Reported by Lawrence Mendenhall: Collins, in one of his productions says, "Peace rnles the day where reason rules the mind." This aptly describes the situation of the threatened strike, for the carpenters and contractors have arrived at an nnderstanding. They are to pay 30 cents an hour to August 15, 1892, and for two years after 33½ cents per hour. This precludes all fears for strikes for over two years, and contractors know just what to expect. At the present writing the millmen have not succeeded in arriving at any definite arrangement as to wages. Notwithstanding this settlement at this early stage of the season, the fear of tronble has had the effect of driving a few plans ont of the market, let us hope temporarily. There will be few blocks of fine stores erected this year, dwelling honses taking their places, which in turn will redtice the aggregate of the season's work.

Architects Crapsey & Brown report for Mount Anburn Baptist Chnrch an edifice for worship; materials: stone, slate roof, hardwood, fnrnace, pews, organ, stained glass; cost $20,000. For Dr. W. S. Burkhart, a residence; materials: frame, shingle roof, fnrnace, grates, mantels, stained glass, etc.; cost $5,000.

Architects Boll & Taylor report for Mr. Charles A. Gerold, of Cincinnati, a residence; materials: frame, shingle roof, fnrnace, stained glass, grates, mantels, etc.; cost $4,000. Also plans drawn for a large Catholic Church at Lndlow, Kentucky, of which particulars will be given later on. Also a store bnilding five stories high for White Star Laundry Company; materials: pressed brick, tin roof, elevator, etc.; cost $25,000. Also plans for an addition to school house at Pleasant Ridge, Ohio; materials: brick and stone, tin roof, furnitnre, fnrnace, etc.; cost $12,000.

Architects Vogel Bros. report for Mr. Springard, Newport, Kentucky, a residence; materials: pressed brick, tin roof, gas, plumbing, stained glass, grates, mantels, etc.; cost $4,000. Also for Mr. J. E. Mountjoy, Warsaw, Kentucky, a residence; materials: frame, tin roof, blinds, grates, mantels, plumbing, etc.; cost $4,000.

Architect W. W. Franklin reports for Henry Wessel a residence; materials: pressed brick, slate roof, fnrnace, hardwood, grates, mantels, stained glass, etc.; cost $12,000.

Architect A. O. Elzner reports the following: residence for Mr. Fenton Lawson; materials: pressed brick, stone trimmings, fnrnace, hardwood, stained glass, grates, plnmbing, mantels, etc.; cost $6,000. Also for Mr. A. H. Chatfield a residence; materials: frame, slate roof, fnrnaces, plate and stained glass, gas, plumbing, laundry fixtures, etc.; cost $6,000. Also a warehonse for the McAlpin Company; size 22 by 75 feet; six stories high; materials: brick, elevators, asphalt roof, gas, plumbing, etc.; cost $15,000.

Architects Nash & Plympton report for the Mount Aubnrn Cable Company, Cincinnati, a power honse; materials: brick and stone, slate roof, machinery, gas, plnmbing, etc.; cost $15,000.

Samuel Hannaford & Sons report for Mr. H. L. Lovell, Lexington, Kentucky, a residence; materials: pressed brick, stone trimmings, slate roof, hardwood, gas, plumbing, stained glass, grates, mantels; cost $15,000.

Cleveland, Ohio.—Architects Cramer & Fugman: For Philip Kraft, a three-story store and flat building, brick, size 40 by 70 feet; cost $16,500. For F. B. Bell, a three-story store and flat building, size 24 by 37 feet; cost $6,300.

Architect D. H. Burnham, Chicago: For the Cuyahoga Company, an eight-story store and office building, size 42 by 92 feet; cost $212,000.

Architects Shengle & Dolman: For the Army and Navy Hall Company, a two-story addition to hall, brick and iron, size 60 by 110 feet; cost $10,000.

Architect B. F. Vandevelde: For the St. Cassemers congregation, a two-story church and school building, size 44 by 120 feet; cost $15,000.

Architects Coburn & Barnum: For J. H. Roemer, a two-story frame dwelling, size 35 by 66 feet; cost $6,000.

Architect F. C. Bate: For J. C. Trask, a two-story residence, frame, size 33 by 56 feet; cost $8,500.

Architect George F. Hammond: For F. H. Glidden, a two-story frame dwelling, size 36 by 40 feet; cost $10,000.

Architects A. & W. French: For Rose & Burdick, a two-story double dwelling, size 42 by 52 feet; cost $4,500.

Denver, Colo.—Architect J. Hnddart: For R. D. Trean, a two-story residence, size 38 by 45 feet, brick and stone; cost $10,000.

Architects Lang & Pugh: For Dr. Ordway, a three-story residence, size 45 by 50 feet, brick with stone trimmings; cost $15,000.

Architect M. A. Stuckert: For Lang & Bugle, a three-story dwelling, size 40 by 52 feet, pressed brick, stone foundations, terra cotta trimmings; cost $15,000.

Detroit, Mich.—Architects M. L. Smith & Son: For the Detroit College of Medicine, a four-story addition, size 43 by 74 feet, brick with brownstone trimmings; cost $15,000. For W. W. Hannan, six three-story brick stores and flats, size 100 by 80 feet; cost $15,000. For James M. Jamieson, a block of three-story stores and flats; cost $12,000. For Charles Grover, Ypsilanti, Michigan, a two-story frame residence, stone foundations, slate roof; cost $8,000.

Architect A. H. Nelson: For A. B. Scott, New York City, New York, a four-story residence, brownstone; cost $100,000.

Architect Albert E. French: For Fred Gnenthar, a two and one-half-story brick residence; cost $8,000.

Architects A. C. Varney & Co.: For Henry Holcomb, five three-story brick flat dwellings; cost $40,000. For A. S. Lapham, a three-story double brick residence; cost $9,000. For George S. Robinson, a two and one-half-story residence, brick with brownstone trimmings, on Charlotte avenue near Woodward avenue; cost $7,500. For George H. Southworth, a three-story brick residence, at Marshall, Michigan; cost $6,000.

Architect Leon Coquard: For St. Joachim's Roman Catholic Church, a three-story brick rectory, on Congress street; cost $8,000. For S. B. Hueber, a two-story brick residence; cost $5,000.

Architects Spier & Rohns: For City Hall Commissioners, Windsor, Ontario, remodeling and building in fireproof vaults; cost $8,000.

Architect A. B. Cram: For the Michigan Normal School Board, two brick annexes to building in Ypsilanti, Mich.

Architects Malcombson & Higginbotham: For the Board of Education, a two-story brick schoolhouse; cost $30,000. For Louis Grenthal, a two-story brick store and flat building; cost $6,000.

Architects John Scott & Co.: For the Detroit House of Correction, addition to prison; cost $10 000 For the Irland & Mathews Manufacturing Company, a three-story brick manufactnring building, size 104 by 116 feet; cost $11,000. For Detroit Police Commission, a two-story police station, size 36 by 90 feet; cost $8,000.

Architect Joseph E. Mills: For the Board of Education, Winamac, Indiana, a large two-story brick school; cost $19,000.

Architects Rogers & Macfarland: For Mrs. Clara C. Kuhee, a three-story donble pressed brick residence; cost $8,500.

Architect George L. Depew: For C. L. Lanrence, a three-story residence, artificial stone; cost $7,000.

Architect Ed. C. Van Leyen: For Mrs. I. T. Hibbard, a block of seven three-story frame dwellings, size 50 by 160 feet; cost $16,000. For Charles Farnsworth, a donble frame residence, size 43 by 60 feet; cost $5,500. For H. G. Milward, a two-story brick residence, size 30 by 50 feet; cost $5,300.

Architect H. J. Rill: For St. Boniface Roman Catholic Church Society, a two-story society building, brick, size 60 by 90 feet; cost $15,000.

Architects Hess & Raseman have dissolved partnership, Mr. Richard Raseman continning the successfnl business in the firm's old offices in the Bnhl building. Mr. Julius Hess retires to take charge of the Sulphite Fiber Works in Port Hnron, Michigan.

Evanston, Ill.—Architect S. A. Jennings reports: Two-story frame honse for C. P. Walcott, all modern improvements, to be bnilt on Jndson avenne; cost $5,200. Two-story brick-veneered double residence for Fred Chapin, with all modern improvements, to be built on Chicago avenue; cost $15,000. A two-story and attic brick-veneered residence on University place, for Thomas Talbot; cost $6,500. Extensive alterations on residence of Dr. P. L. McKinney, at Sonth Evanston; cost $5,000. Alterations on L. D. Parker's residence, corner of Maple avenne and Dempster street; cost $5,000. A large frame donble house for Mrs. M. E. Wilson, of Anrora, Illinois, to be bnilt on Sheridan Drive, Evanston, Illinois; cost $15,000. Frame residence for Mrs. Olive Beason, on Orrington avenne; cost $5,500. Extensive alterations on the residence of Volney W. Foster, on Greenwood boulevard, with all modern improvements; cost $6,000. A Swiss villa design, combination brick and frame, for Edward L. Brooks, to be built at "Ingleside," Evanston; cost $7,500. A two-story brick and frame residence, for W. W. Catlin, with all modern improvements, also to be erected at "Ingleside," Evanston; cost $8,000. Alterations on the residence of A. J. Brown, on Oak avenue; cost $5,000. Addition to livery stables owned by Andrew Schwall, on Orrington avenue, of brick; cost $5,000. A donble house for W. H. Bartlett, brick-veneered, to be built at Edgewater, Illinois; cost $9,000. A donble brick-veneered residence, to be built at Edgewater, Illinois, for A. A. Thomas, all modern improvements; cost $8,000. And also a block of four two-story honses, brick constrnction; cost $16,000. A two-story frame residence for William T. VanArsdale, to be bnilt on Oak avenne; cost $7,000. A block of eight honses, frame constrnction, to be built on the corner of Chnrch street and Asbnry avenne, with modern improvements; cost $32,000. A three-story brick flat building, for John Deitmeyer, at Wankegan, Illinois; cost $6,000.

Milwaukee, Wis.—Architects Rau & Kirsch: For Val Blatz, a donble brick block; size 44 by 85 feet; cost $12,000. For H. Weber, a brick and stone residence; size 26 by 76 feet; hardwood finish, mantels, stained and plate glass and hot-water heating; cost $15,000. For the Pnblic School Board, ninth ward, a brick and stone school bnilding; size 104 by 77 feet; cost $38,000.

New York City, N. Y.—Office building for E. L. Kellogg & Co., Educational Publishers, New York City, Wilson Eyre, Jr., Philadelphia, architect. This building has jnst been started on the north side of Ninth street, near Broadway, New York, on the site of one of the substantial old-time dwellings. The basement covers the entire lot and the rear and side walls are carried on steel girders and beams to give a long skylight to rear basement. The basement and first story front is to be of India limestone, tool dressed, and the bay and rest of front of mottled terra cotta and brick 1¼ by 12 inches; the terra cotta is to be modeled from special designs; the front slope of roof is to be of dnll chocolate glaze tiles; the bnilding is to be six stories high not incltding basement; the plans provide for fine plumbing, hot-water heating, electric elevator, gas and electric lighting, plate glass on entire front windows, oak and pine finish stained; a rather novel featnre for snch a bnilding will be the mill constrnction of the floors nsing 6 by 18 inch, Georgia pine girders and 3-inch sprnce planks for under floor finished by ⅞-inch pine floor on top; seven fireplaces are scattered in varions parts of the building to have mantels of special design; the office fnrniture, partitions, etc., are also to be designed in harmony with the bnilding. Many of the daily papers of the country have erected fine bnildings for their offices, but this is one of the first to be bnilt by the pnblishers of class pnblications. The *School Journal* and *Teachers' Institute* are two of the journals pnblished by the owners, and are well-known as the standard educational periodicals of the United States.

Pittsburgh, Pa.—Architect J. E. Obitz: For George Schmidt, a three-story brick residence; cost $15,000.

Architect J. W. Campbell: For the M. E. Congregation at Mansfield, Pennsylvania, a two-story church bnilding; brick, with stone trimmings; tower, 106 feet.

Architect S. T. McClarren: For G. W. Alleyn, a two-story brick dwelling; size 43 by 40 feet; cost $9,500.

Architect Kanffman has prepared plans for the Italian Catholics, for a two-story chnrch bnilding; to cost $43,000.

Springfield, Ill.—Architect Geo. H. Helmle: For Z. A. Enos, block of city dwelling honses; 130 feet front, 48 feet deep, two stories and basement; pressed brick and stone, hardwood finish, wood mantels, furnace heat, plate glass; cost $16,000. For Ihlenfeld & Weidlock, two-story mnsic hall; size 60 by 157 feet; pressed brick and stone, plate glass, stage, etc.; cost $18,000. For J. H. Schuck, remodeling store bnilding; size 40 by 157 feet; plate glass and pressed brick front; cost $6,000.

St. Cloud, Minn.—Architect A. E. Hussey: For John Leisen, a two-story brick residence, size 30 by 75 feet; cost $8,000. For Theodore Bruener, a two-story brick store building, granite trimming, size 27 by 80 feet; cost $6,000. For John Heiman, a two-story dwelling, brick, size 27 by 80 feet; cost $5,000. For the State Normal School, a two-story addition, brick and granite, size 50 by 84 feet; cost $20,000. For J. W. Close, Little Falls, Minnesota, a two-story brick store, size 25 by 102 feet; cost $9,000.

St. Louis, Mo.—Architect L. C. Miller: For H. Frank, Natchez, Mississippi, an office bnilding, brick and stone, size 50 by 90 feet; cost $25,000.

Architect A. M. Baker: For Miss C. Schulte, a three-story store and flat building, size 33 by 62 feet, brick and stone; cost $10,000. For F. R. Dun, a two-story residence, pressed brick, size 34 by 55 feet, slate roof; cost $10,000.

Architects Shepley, Rutan & Coolidge: For the Knox estate, a block of four-story stores, brick and terra cotta, size 130 by 185 feet; cost $125,000.

Architects James Stewart & Co.: For James Stewart, six three-story dwellings, brick and stone, size 108 by 61 feet; cost $33,000.

Architects Beinke & Wees: For Mrs. H. Peating, a two-story brick dwelling, size 36 by 39 feet; cost $17,500. Also for Mrs. Schnlmann, two-story residence, size 30 by 32 feet; cost $5,000.

Architect M. T. O. Allardt: For Thomas Ayryl, a two-story flat bnilding, size 44 by 66 feet; cost $6,000.

Architects Matthews, Clarke & James: For Henry Tatnm, a three-story dwelling, size 32 by 61 feet, brick and stone; cost $10,000.

St. Paul, Minn.—Architect L. D. Cushing reports plans for a five-story steel constrnction building on the corner of Sixth and Robert streets, to be erected by the Boston Northwest Real Estate Company, at a cost of about $80,000; the façades will be of buff brick, with copper bays; the bnilding has a frontage of 100 feet on each of the streets named; it will be occupied by a dry goods firm, and will be fitted with all modern conveniences. The same architect is also drawing plans for a building with a frontage of 25 feet on Robert street and 50 on Sixth, running around the building jnst described; it will be four stories in height, and will be of stone, brick and iron.

H. M. Byllesby is having plans drawn for a row of two-story brisk and stone dwellings, on the west side of St. Albans street between Summit and Grand avennes; to cost about $25,000.

W. J. Dyer & Bro. will erect a five-story store building, of steel and brick, on Fifth street between Wabasha and St. Peter streets; it will be 90 by 150 feet in dimensions, and will be fittcd up with the usual modern appnrtenances.



RESIDENCE OF H. A. KNOTT, BUENA PARK, CHICAGO.

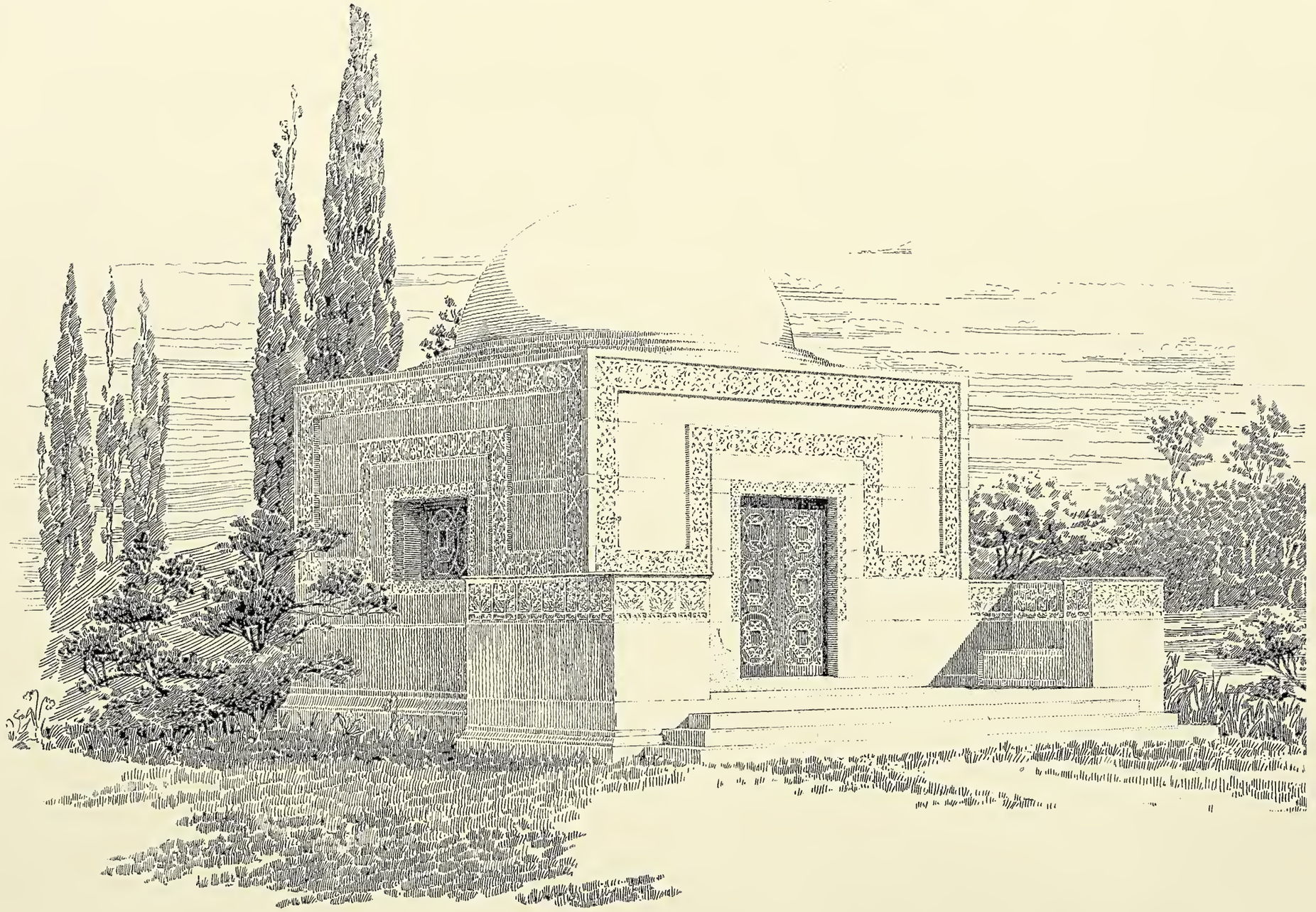
J. L. SILSBEE, ARCHITECT.



INLAND ARCHITECT PRESS.

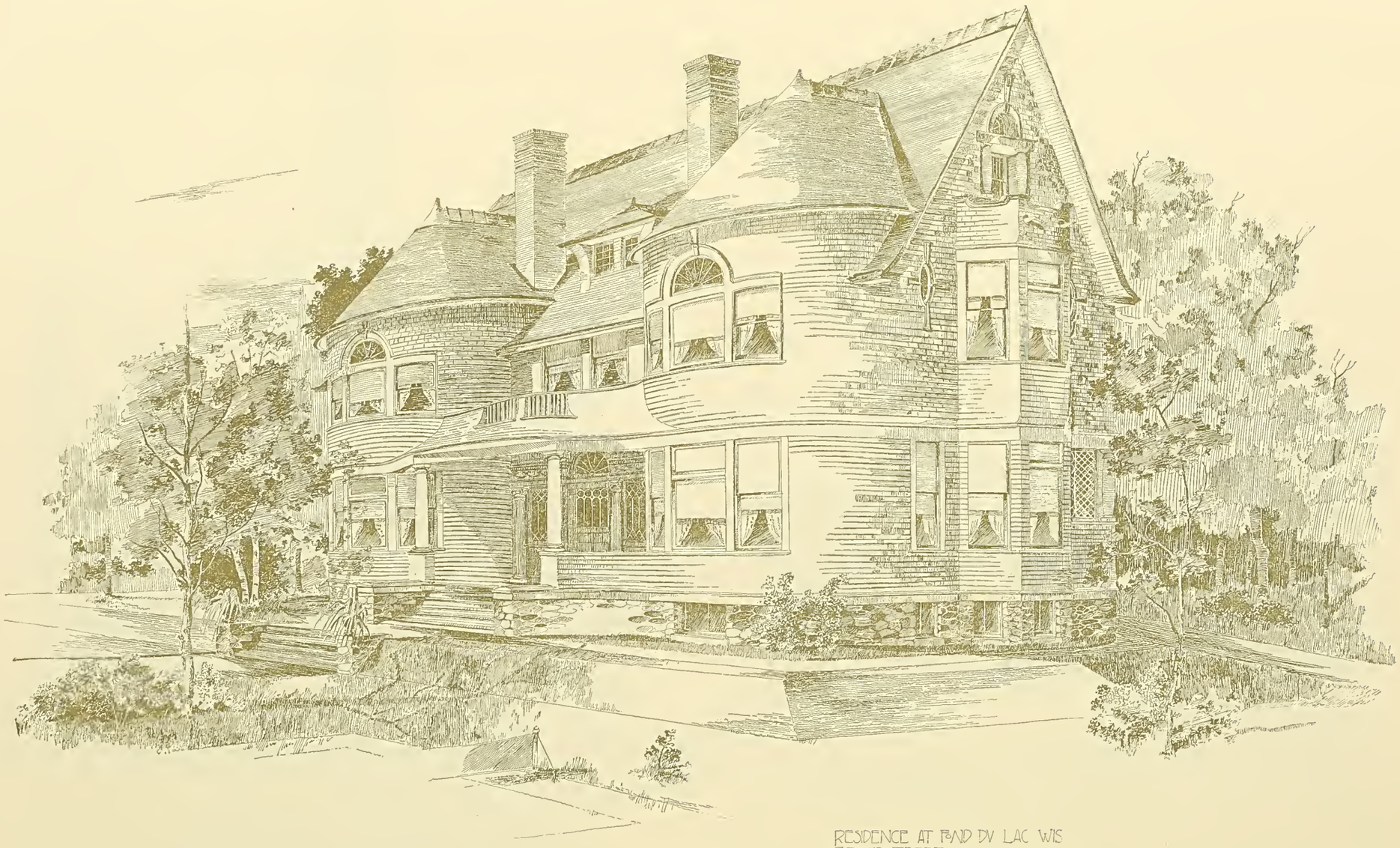
RESIDENCE OF R. CONKLIN, KANSAS CITY, MISSOURI.

VAN BRUNT & HOWE, ARCHITECTS.

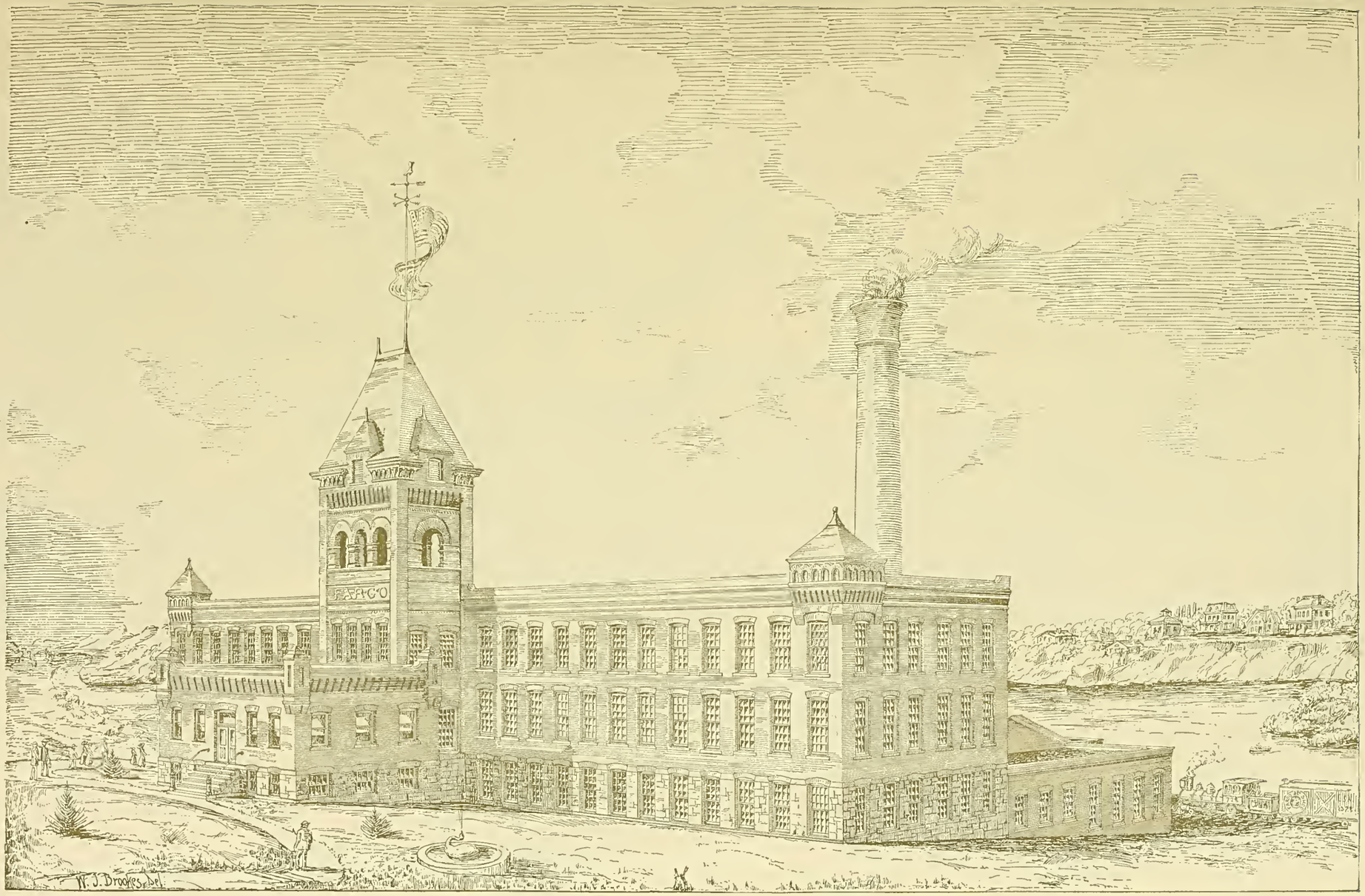


THE WAINWRIGHT MEMORIAL, ST. LOUIS, MO.

ADLER & SULLIVAN, CHICAGO, AND CHAS. K. RAMSEY, ST. LOUIS, ASSOCIATED ARCHITECTS.

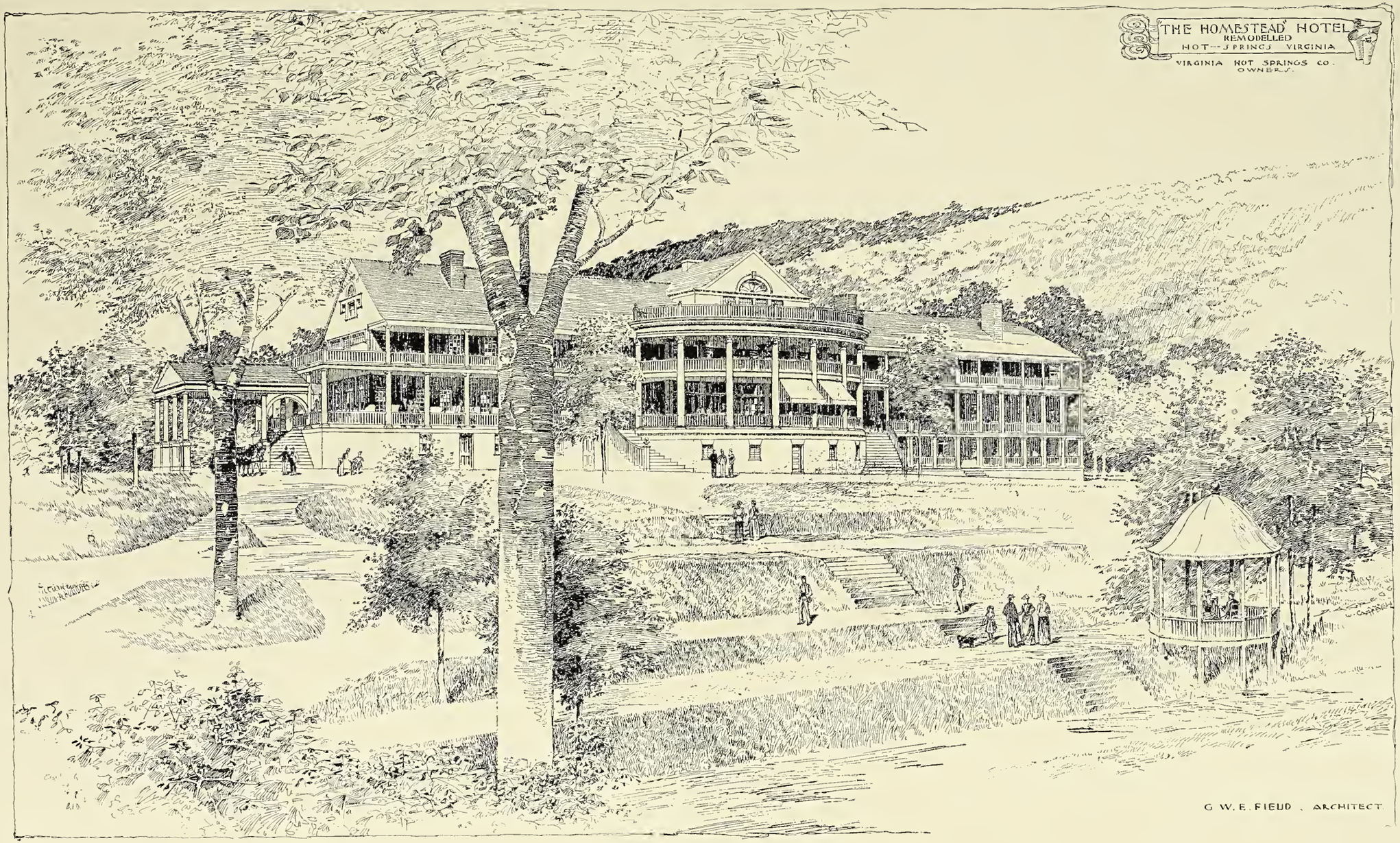


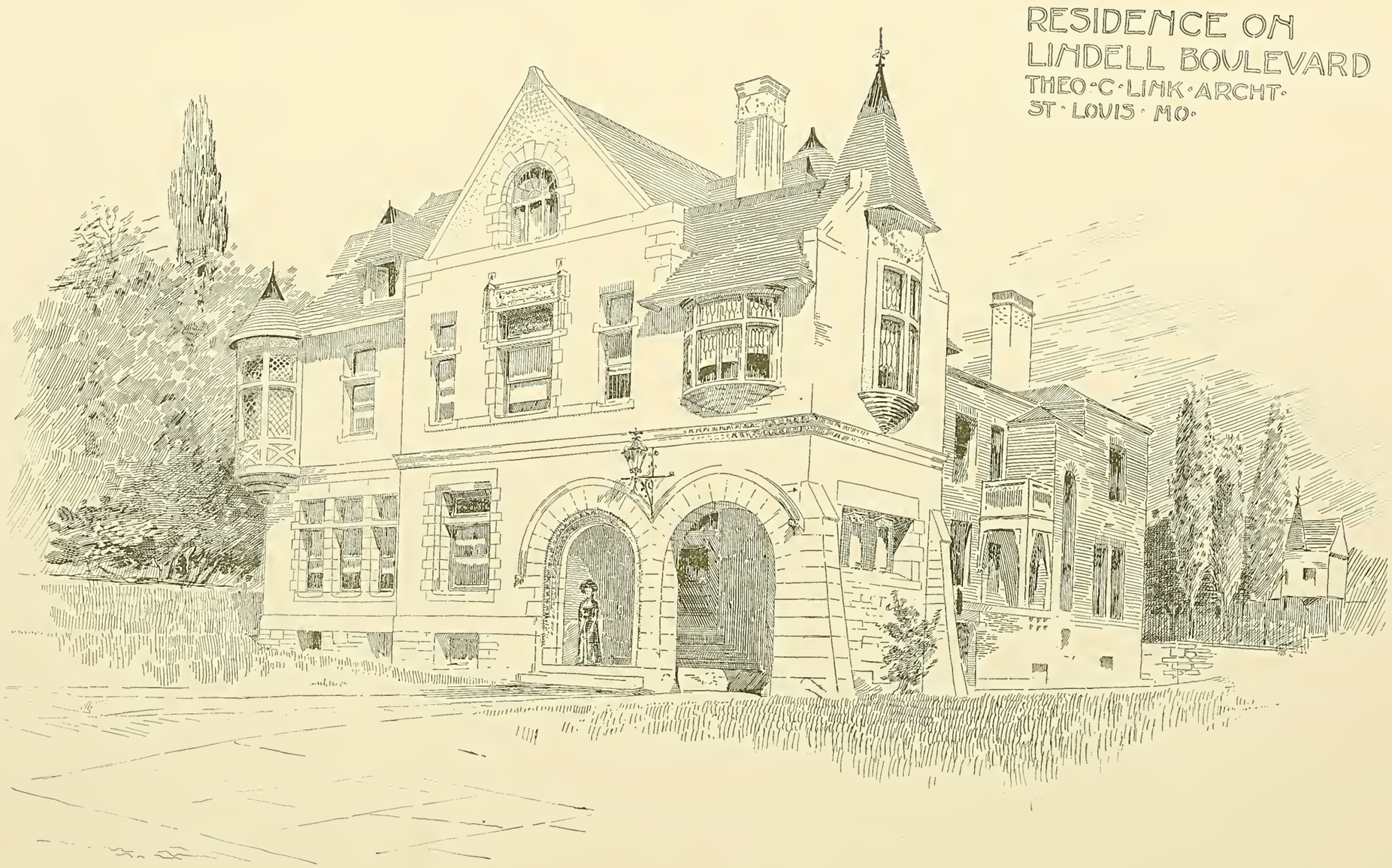
RESIDENCE AT FOND DU LAC WIS
FOR MR EBERT ESQ
A.M.F. COLTON AND SON ARCHTS CHICAGO

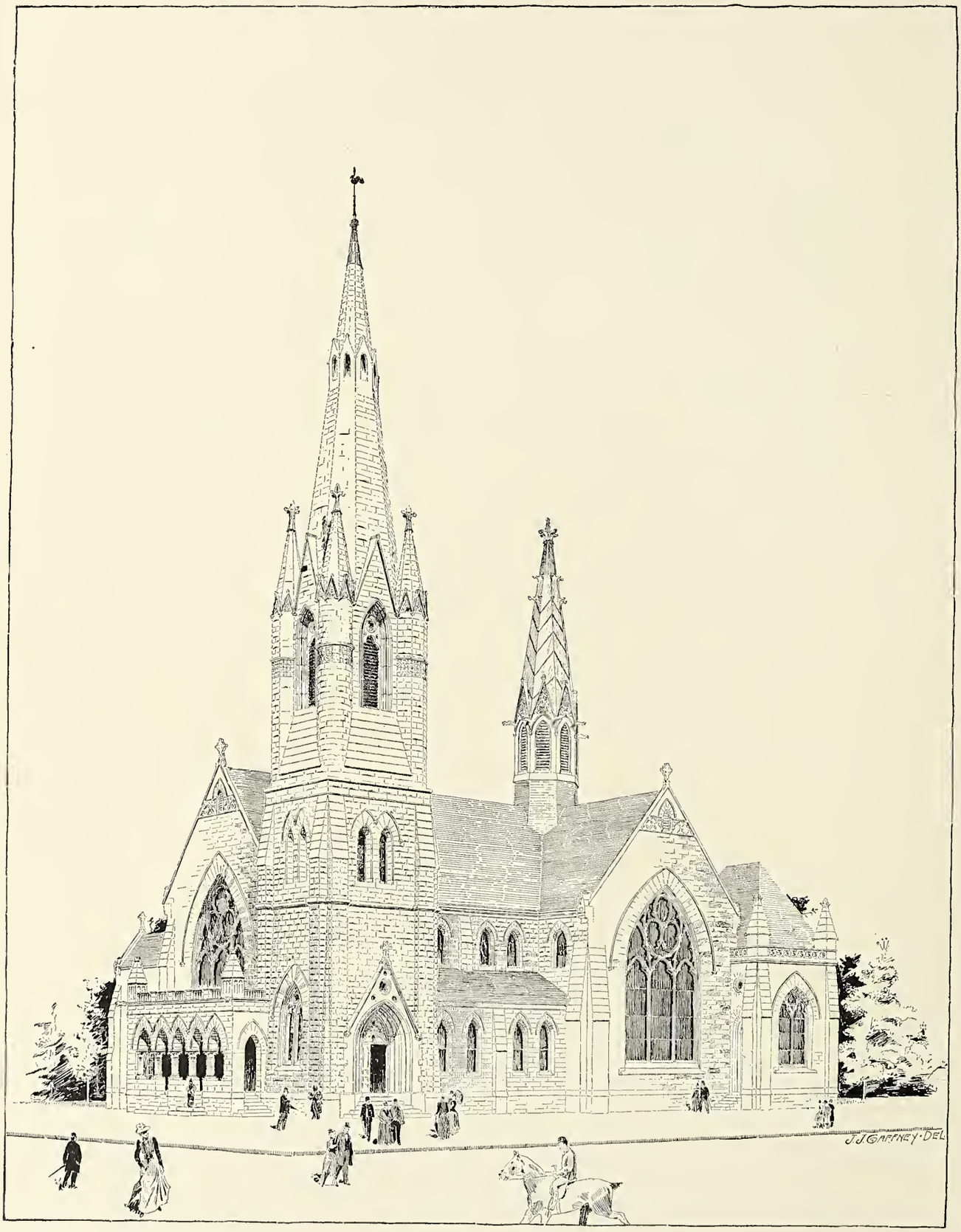


MANUFACTURING BUILDING FOR C. H. FARGO & CO.

L. B. Dixon, Architect, Chicago.


THE HOMESTEAD HOTEL
REMODELLED
HOT SPRINGS VIRGINIA
VIRGINIA HOT SPRINGS CO.
OWNERS.
G. W. E. FIELD, ARCHITECT.


RESIDENCE ON
LINDELL BOULEVARD
THEO·C·LINK·ARCHT·
ST·LOUIS·MO·



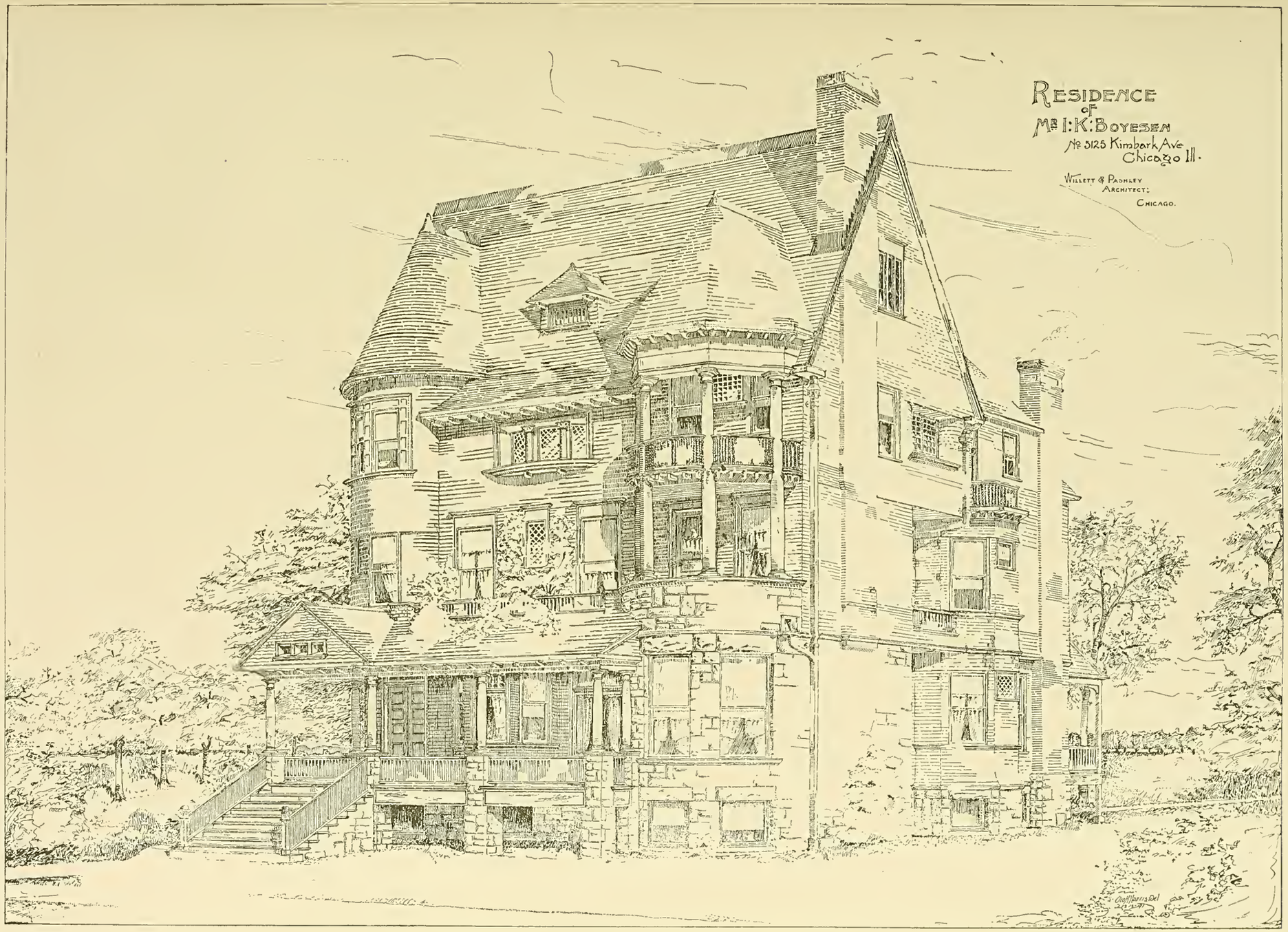
ST. PAUL'S EPISCOPAL CHURCH, NEW ORLEANS, LA.

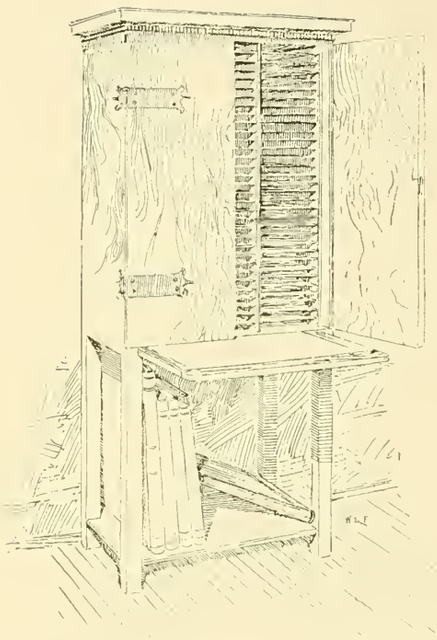
McDONALD BROS., ARCHITECTS, LOUISVILLE, KY.

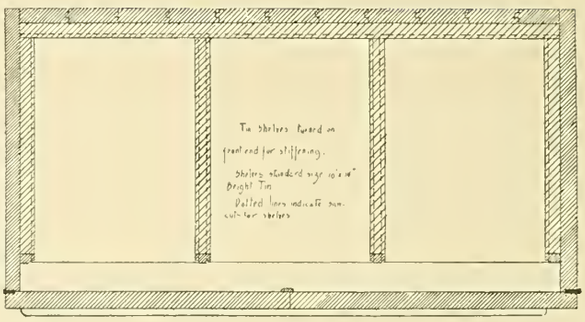


Design for
Floyd County Court House
Rome, Ga.

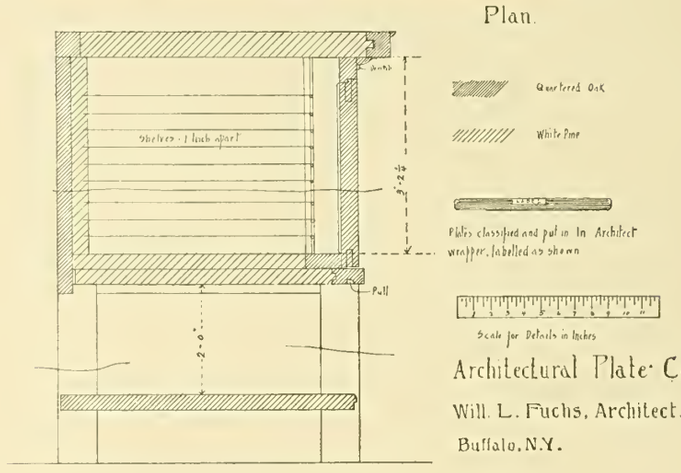
Bruce & Morgan Archts.
Atlanta, Ga.


RESIDENCE
OF
MR I. K. BOYESEN
No 5125 Kimbark Ave
Chicago Ill.
WILLETT & PASHLEY
ARCHITECTS
CHICAGO.



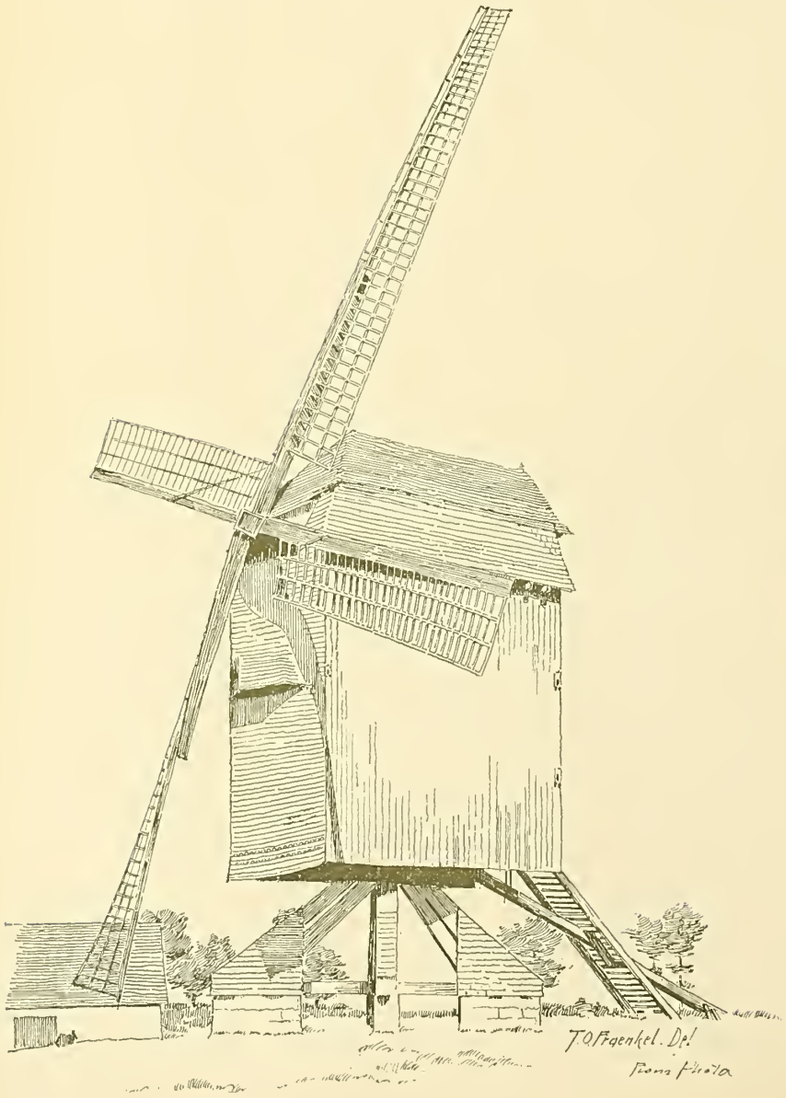


Plan.

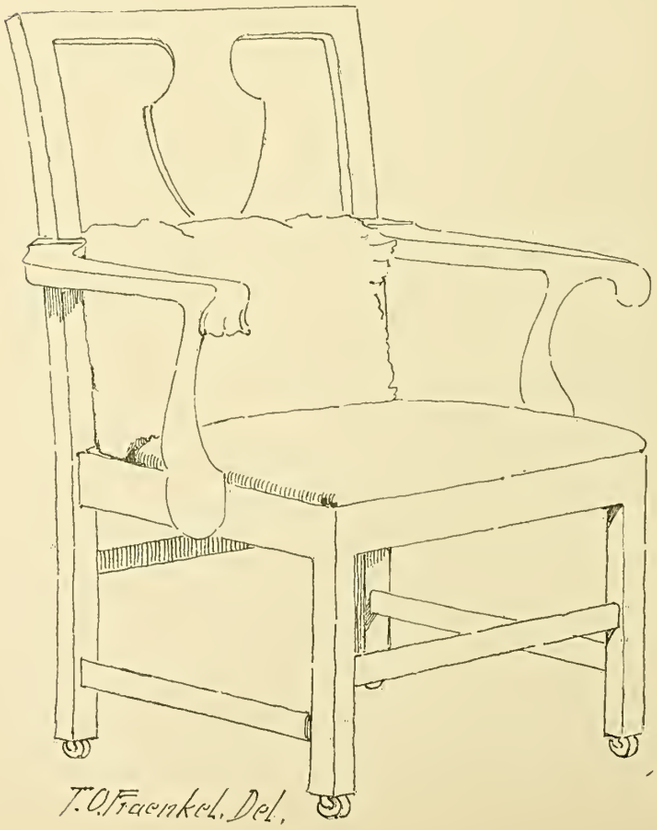


Architectural Plate Case
Will. L. Fuchs, Architect,
Buffalo, N.Y.

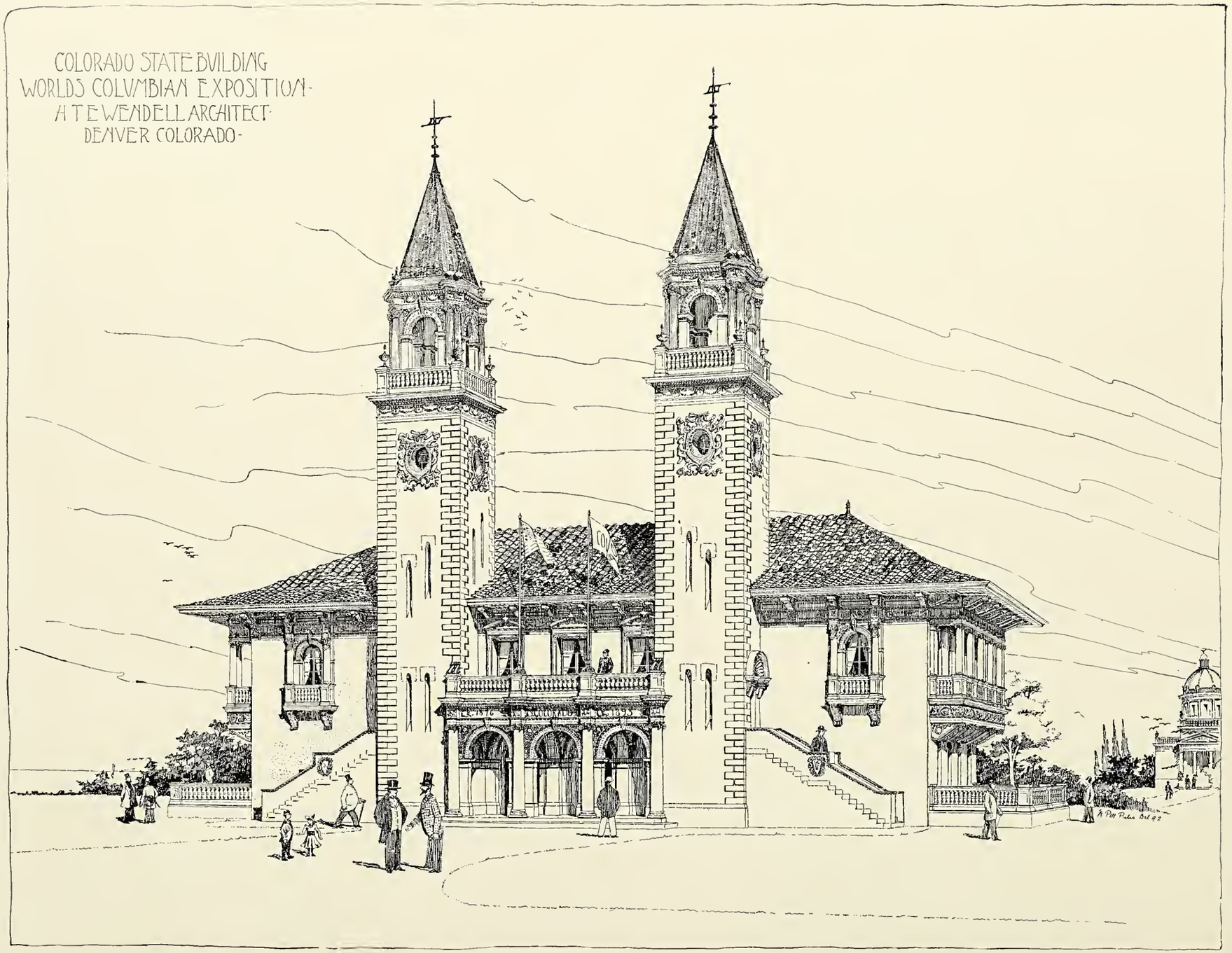
Section.



General Washington Chair from Mt Vernon. Owned by Mrs A.O. McLeod. of Alexandria. Va.



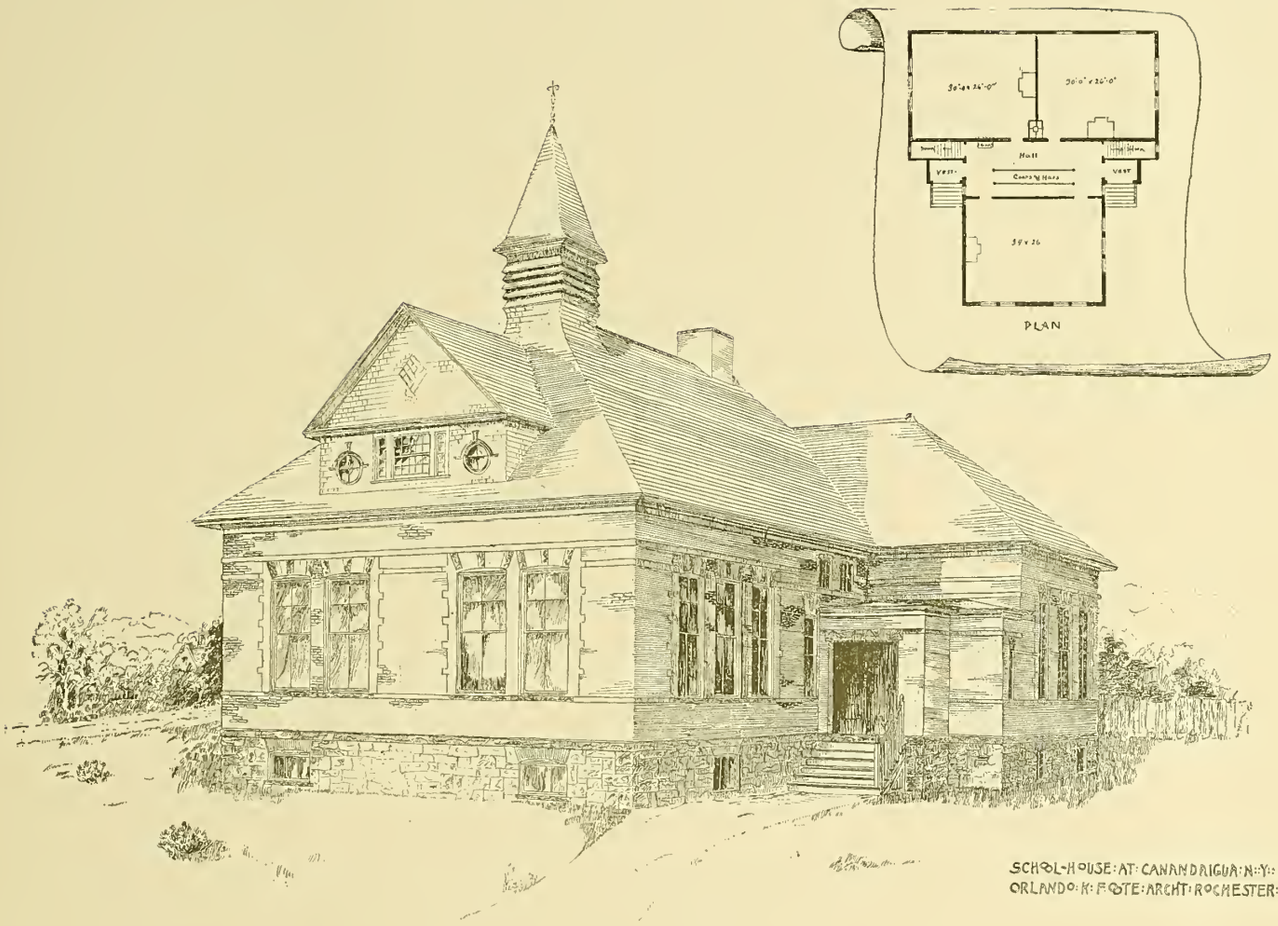
COLORADO STATE BUILDING
WORLDS COLUMBIAN EXPOSITION-
A T E WEIDELL ARCHITECT
DENVER COLORADO-



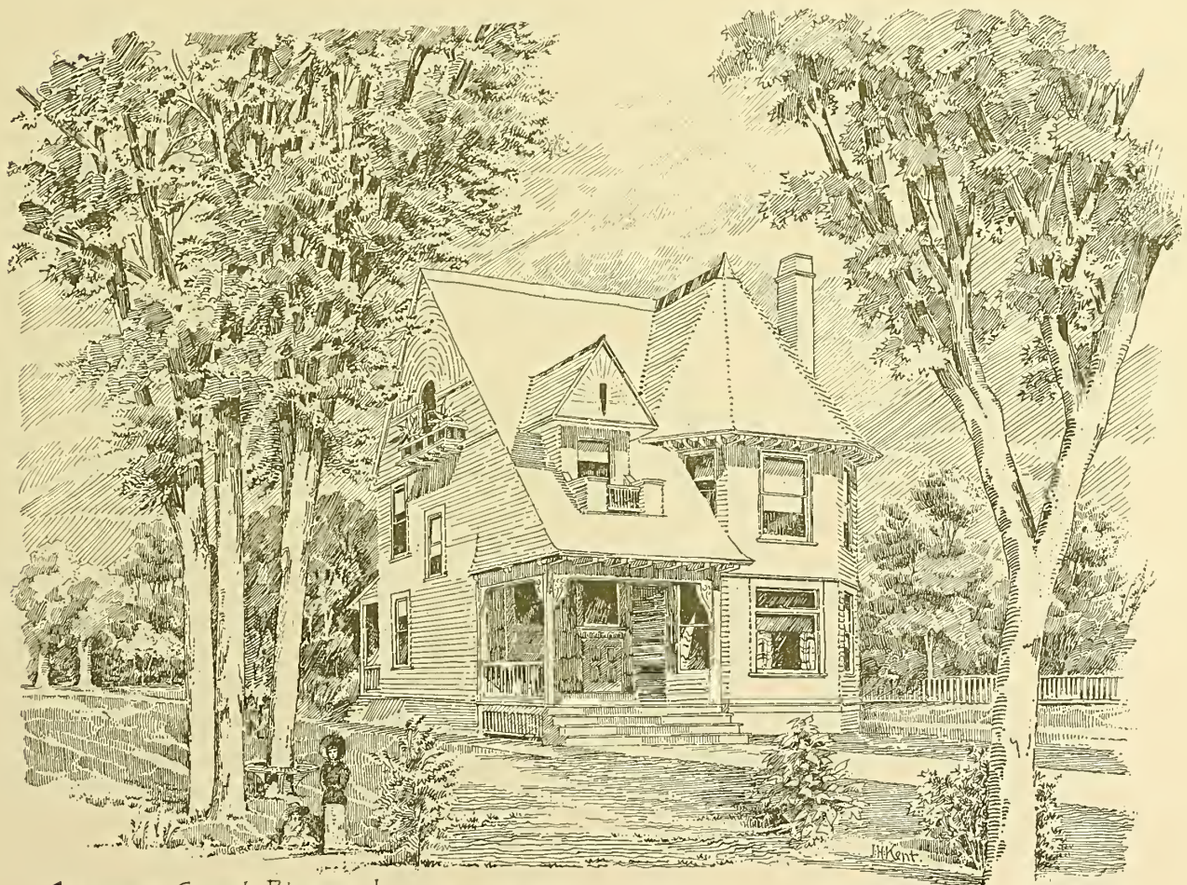


BVRLINGTON·INSVRANCE CO·BLOCK
BVRLINGTON · ·IOWA·

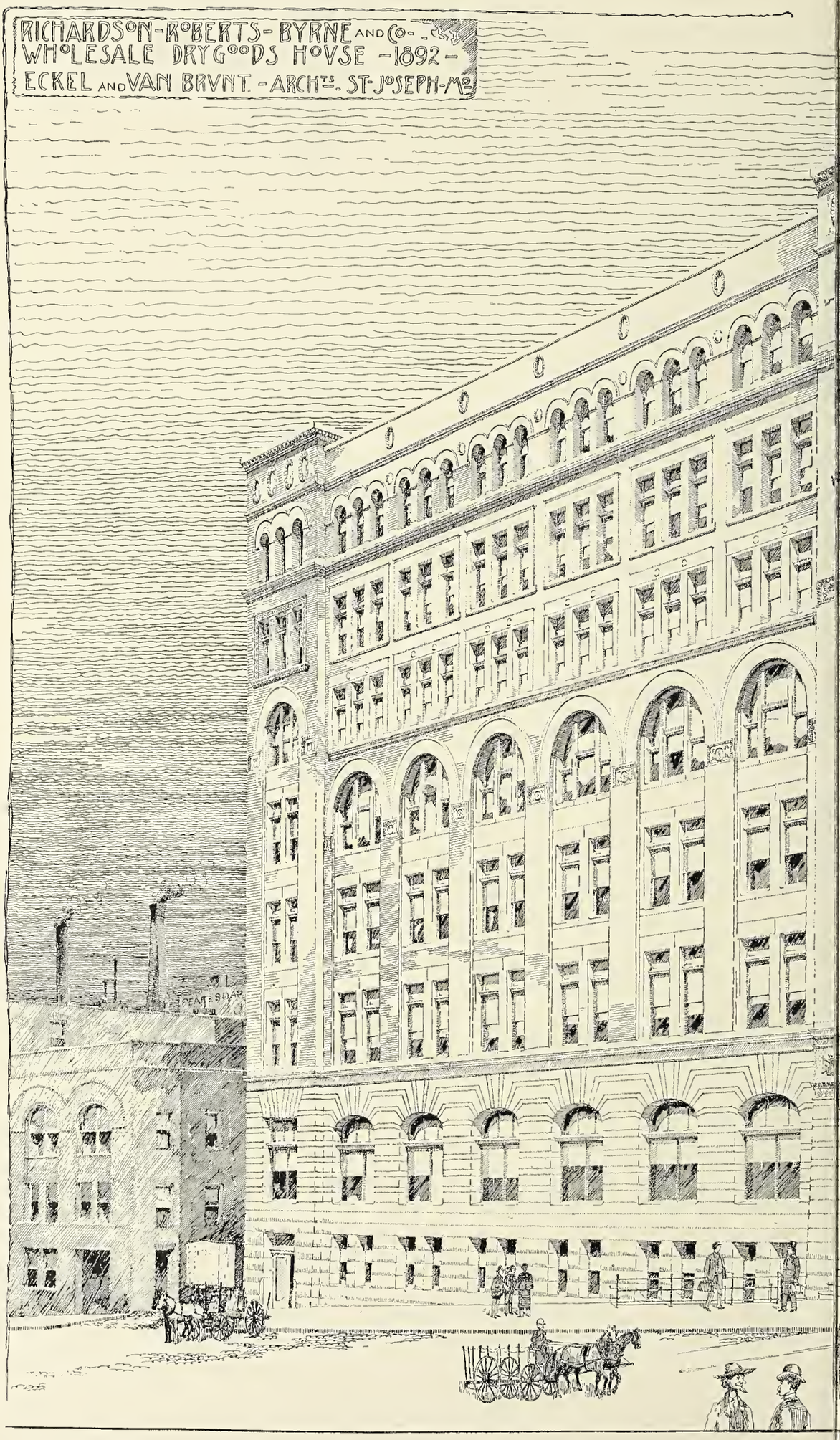
W·L B·JENNEY & W·B·MVNDIE ·ARCHTS
CHICAGO·ILLINOIS

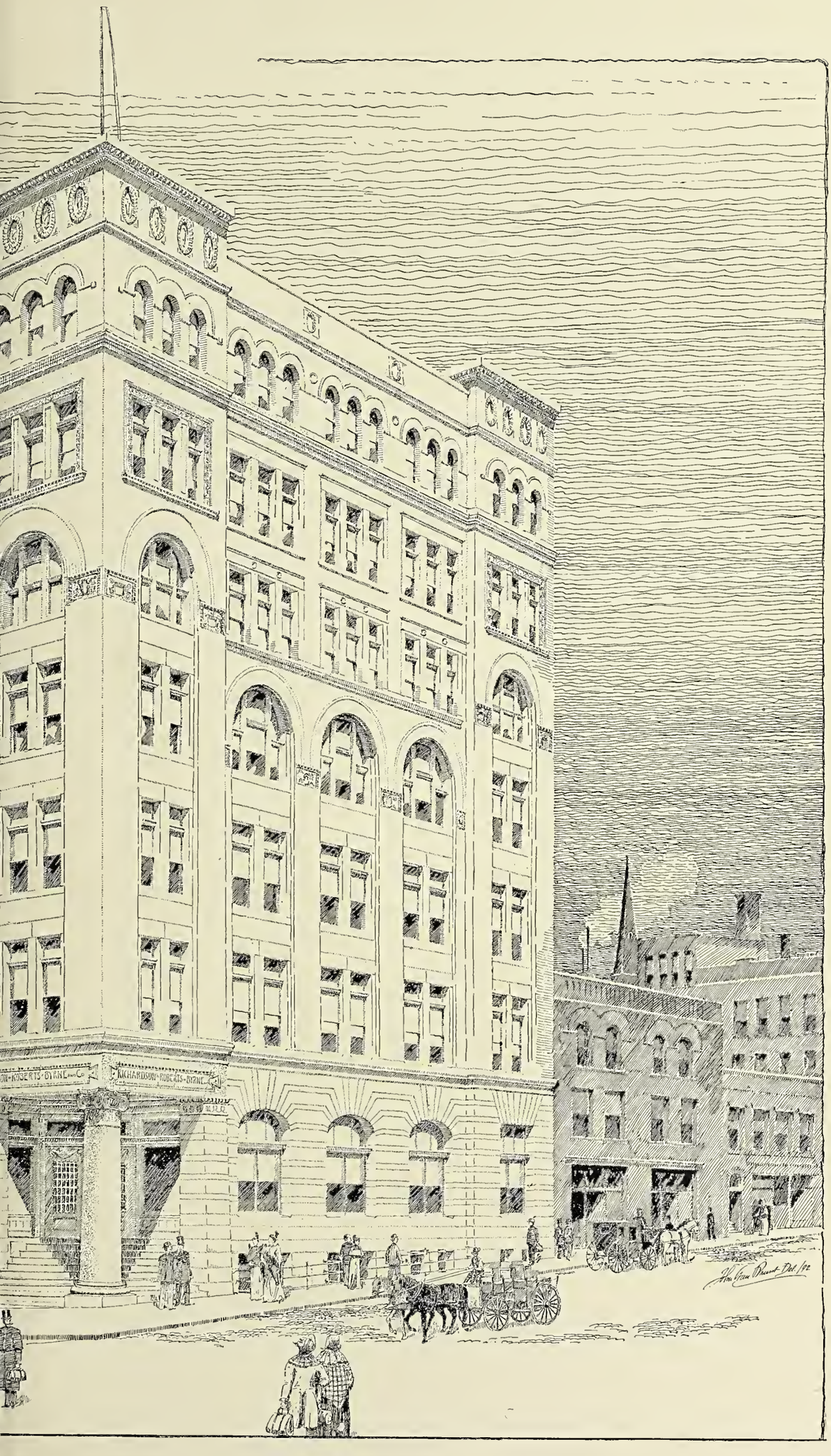


SCHOOL-HOUSE: AT: CANANDAIGUA: N:Y:
ORLANDO: K: FOTE: ARCHT: ROCHESTER: N:Y:



COTTAGE at COUNCIL BLUFFS. IOWA. for MRS D.B.SUTHERLAND. J.Hackett Kent. Architect


RICHARDSON-ROBERTS-BYRNE AND CO.
WHOLESALE DRY GOODS HOUSE -1892-
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GENERAL VIEW OF COURT, LOOKING TOWARD THE LAKE FROM ADMINISTRATION BUILDING, WORLD'S COLUMBIAN EXPOSITION, CHICAGO.

DEPARTMENT OF CONSTRUCTION, MAY, 1892.

THE INLAND ARCHITECT AND NEWS RECORD

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IN THE WEST.

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Failure of a Registration Bill to Become a Law.

Assembly Bill No. 451, entitled "An Act to regulate the Practice of Architecture in the State of New York," will go down in the history of the efforts of architects to so regulate the practice of their profession as to protect the public from the work of charlatans as the measure that failed because the chief executive was both in ignorance and in his own estimation greater than his constituents. Upon the representations of all the leading architects in the state, either personally or through their societies, the state legislature passed a bill for the regulation of the practice of architecture, and it was placed before Governor Flower for signature. The friends of the bill upon receiving intimation that it would be vetoed went to Albany and made such amendments as seemed to meet the objections of the chief executive, and placed it again before the legislature for passage, which was again done unanimously by both houses. It would appear, however, that this governor has been specially educated in the line of architecture, for he again assumed that his knowledge of what would most benefit the people of his state was greater than that of the entire body of the peoples' representatives, and the bill failed to become a law. The evidence goes to show, however, that he gave heed to the advice of some "architects" in New York city whose knowledge he believed to be co-efficient with his own. Their names are appended to the letter of remonstrance which is printed in full upon another page, and it is needless to say that they have been so proficient in their adopted vocation that they are unknown to the architectural or general public beyond the confines of their respective neighborhoods, and are none of them members of the American Institute of Architects or any of its Chapters. As a form of examination showing a certain proficiency in architectural practice is a condition of membership the reason may be inferred. If the inference be untrue in regard to any of these, we are free to remark that he should be ashamed of himself. It will probably be a long time before such a bill will successfully pass and become a law, for the simple reason that architects are not politicians, and it is not often that a state legislature and senate is made up of men as intelligent and public spirited as that lately in session in New York state, as on the contrary a state is seldom burdened with a governor with so gigantic an intellect as the present incumbent in that state. We need not comment upon the remonstrance which we print or Mr. Adler's masterly answer thereto in behalf of the Executive Committee of the Institute. It is but just to say, however, that it is probable that the personal attention given to the bill by the president of the Western New York State Chapter did much to secure its favorable passage, as the severe illness of that gentleman at a critical time may have had much to do with the ultimate result.

Rapid Progress in World's Fair Work.

The progress in the work of preparation for the World's Columbian Exposition has reached that stage where no doubt can exist of the final completion of all buildings in ample time, nor the entire success of the designs from an architectural standpoint. The engineering features of the construction are in many cases unique, and the

rapidity with which the work has progressed is certainly most remarkable. The last structures to be erected are the state buildings, of which but a few have been commenced, though the plans for twenty-three have been approved by the Chief of Construction. Almost without exception these buildings will in a large degree be representative of the architecture of their respective states. It is to be deplored that this enterprise was and is suffering from the narrow-minded, money-grabbing disposition of a few who have no patriotism and no local pride, but seek in every way to defeat the best efforts of those who have; and who would be well pleased to see this great national enterprise prove a failure. The most prominent case of porcine development comes in the shape of a woman who has taken advantage of some ambiguous passage in an old enactment which gave a tract of land to the city, and placed an injunction upon the erection of the art building that is to be used for the many congresses that will meet during the fair. While this person has probably no legal standing in the courts, the injunction can so delay the work as to make it impossible to complete the structure in the limited time remaining. There is some satisfaction, however, in the fact that the representative of this party has probably laid himself liable to both criminal and civil process in the matter, and will be most energetically proceeded against. As an architectural study the design, construction and ornamentation involved in the World's Fair buildings will be most valuable to every architect, engineer and artist who may visit this grand collection of architectural forms, and the general enlightenment and advancement along these lines will be a lasting benefit to this country and the world.

Twenty-fourth Annual Convention A. I. A.

At the April meeting of the executive committee of the American Institute of Architects, it was decided to hold the next convention in Chicago about the time of the inauguration of the World's Columbian Exposition. This will probably occur on October 21, and the convention will be set for about that date. Notice is thus early given so that members may begin to plan their work so that nothing will interfere with their attendance. The occasion will be such as to offer the greatest inducement possible to members, no matter how remote their place of residence, to attend this convention, and it should therefore be the largest in attendance of any ever held or that can hope to be held in many years. Of the five hundred active members at least nine-tenths should be present, and probably will be. An elaborate programme of sightseeing is being prepared by the officers of the Institute and the local Chapter, while in the convention there is much work that requires attention. The profession is on the eve of radical changes in its position and purposes. A bill now before congress making a radical change in the method of procuring plans for public buildings may any day become a law. The history of the state bill in the state of New York for the proper regulation of architectural practice, which was passed twice by the assembly and only failed to become a law through the ignorance or hostility of the governor, shows that the people are becoming alive to the necessity for such an enactment, and only require the active support of the members of the Institute to pass such a law in many of the states. The ethical side of the profession, which has been neglected so long as to have almost become obsolete, should be kept in mind and proper precepts be promulgated by the Institute, no matter how lax the individual member may be in the observance. These and many other vital matters should receive the earnest attention of the profession, and plans for their advancement should not be left to the hasty thought of a few during the sessions, but should be carefully considered in advance, so that each member can utter his mature thought when the matter is brought up for discussion. In view of this the officers of the Institute should place all reports of committees, and all other subjects likely to be discussed, before the members a month or two before the convention is held.

Gratifying Result of the Art Building Litigation.

The people of Chicago are to be congratulated upon the speedy dissolution of the injunction which restrained the Art Institute and the World's Columbian Exposition from proceeding with the erection of the new art building, which was accomplished on June 23. While there has been no doubt in the minds of those legally informed that this injunction had no standing in law, it was probable that the necessary delay would be fatal to the completion of the structure in time for the opening of the Exposition. The foundations were just completed when the injunction was served a month ago, and it will require the most active work upon the part of Shepley, Rutan & Coolidge and their contractors to complete the building by May, 1893. The despicable position held by this property owner in the matter cannot be too loudly condemned nor the active resistance and perseverance of the Art Institute people under the leadership of their president, Mr. Charles L. Hutchinson, too highly commended. While the world's congresses that are to be held will have a building incomparable in location and appointment for their meetings, after the Fair is ended the art treasures that are now in possession of the Art Institute, and those that will come to it through the World's Fair will have a home second to none among the art buildings of the country.

A Movement to Secure Better Roads.

While it is probable that the railroads have retarded roadmaking in the United States, it seems destined that another later invention, the bicycle, will largely aid in establishing good roads throughout the country. In no country in the world is the art of roadmaking so little understood or so little practiced. A "dirt road"—the natural soil scraped to the center of the turnpike, seems to be the highest degree of the art known to the bucolic mind, and in most cases not even this is done. This, too, in old farming communities where the produce of the farms is hauled to market in wagons. The road is not a state or often a county affair, but is under the supervision of a "pathmaster" appointed by the township, and his duty is to see that the road tax is paid in money or worked out by the inhabitants. That this system is ridiculous does not need to be pointed out, but it seems strange that with all the intelligence possessed by our farming communities they do not discover the annual loss in dollars they sustain by the almost impassable roads over which they travel. The present season has been unusually wet and the roads consequently worse than usual, but no one seems to take any active measures toward their betterment but the bicycle riders, who seem disposed to even go into politics to secure what should be a natural result of the advancement in population and the actual demand of necessity.

RECENT FIREPROOF BUILDING IN CHICAGO.

BY P. B. WIGHT, ARCHITECT.

PART V.

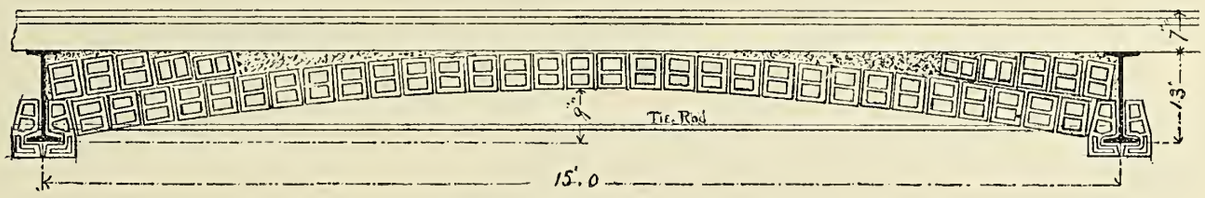
HOLLOW TILE SEGMENT FLOOR ARCHES.

THE earliest fireproof floor arches in which clay was used were built of common bricks. The use of these was general all over this country wherever I beams were employed. Within the last seven years very few have been used in Chicago except in isolated cases over boilers. Where no special covering skewbacks are used such arches do not protect the beams; and in case of even a slight fire the beams are liable to sag, and the floor is thus practically destroyed. Latterly hollow tile arches in segment form have been used over boilers in place of brick, even when the beam protection has been omitted. The object of fireproofing over boilers is to prevent fire communicating by continuous radiation, rather than from accidental causes. This, though it might produce combustion in wood, is not great enough to cause iron to warp. The hollow tile is an important substitute for brick in that it prevents conduction of heat through the floor, and leaves the upper surface at an ordinary temperature, which is not the case with brick arches, filled at the haunches with solid concrete.

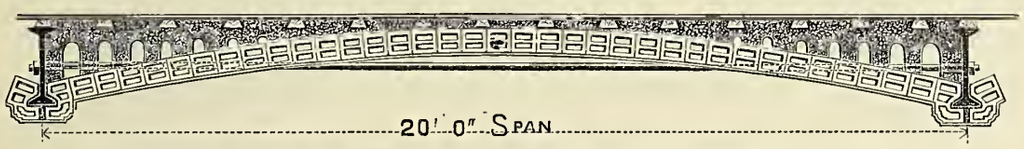
But it is not so much in the use of hollow tile segment arches between beams at ordinary distances that improvements have been made. One of the greatest advances has been in utilizing the extraordinary strength of hard burned hollow tiles in the construction of long span segment arches. This has been especially the case since I beams of great depth and light sections have been available. The greatest economy in both weight and cost per superficial foot of floor has thus been attained; this being a little more in the steel used than in the arch construction. Segment arches of from ten to twenty feet span have been successfully used in many buildings. Arches of from sixteen to twenty feet span have been built directly from girders resting on iron columns, the thrust of the exterior arches being taken up by tie rods. This has been done before in England with concrete arches, but the advantage of weight is with the hollow tiles, which is only about half that of concrete. Shorter spans have been built between floor beams resting on girders, those in the new Leiter building on State, Van Buren and Congress streets, just completed, being eight to nine feet from centers, and those of the American Express stable, now in course of construction, being ten to twelve feet from centers. In the former building the beams are 15 inches and in the latter 20 inches deep. In both buildings the columns and girders were covered before the arches were built.

The first building in which long span segment floor arches were used was the Commerce Office building, Chicago, where the arches are 16 feet span, 6 inches thick and 9-inch rise and spring between the girders, no beam covering being used. In this building the ceilings were furred off to a level, with light suspended ⊥ irons, 12 inches from centers, supporting split tiles, having grooved edges, set between them. This produced a perfect ceiling effect. The actual tests for strength on these floors showed remarkable results. The work was done by the Pioneer Fireproof Construction Company. But the use of a double system proved to be expensive.

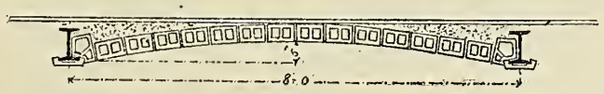
The long span segment arches have continued to be used in buildings wherein a flat ceiling was not a necessity, and everywhere they present a better appearance than the old style of short span brick arches. When the tie rods are evenly and carefully spaced they are cased in with fireclay tiles so as to leave a paneled effect when the ceilings are plastered. Segment arches have not, however, superseded the beam construction and flat arches for general use in buildings that are to be plastered, and especially those in which partitions are likely to be shifted. In the Rand-McNally building an attempt was made to use flat tile ceilings under segment hollow tile arches, according to a new system, but though it is an accomplished fact it is not considered a success and has not been used since, the flat arches either on the side or "end pressure" systems having been used in the most recent buildings in which flat ceilings are a desideratum. In the Sibley warehouses, Chicago, an arch was used in which the soffit was a segment and the top a flat line. These were intended to carry warehouse weights, and were of extra heavy tiles. There is no advantage in this, however, either in strength, lightness or economy, over a segment arch with haunches filled to a level with concrete. The following illustration shows this form of arch, which was made by the Pioneer Fireproof Construction Company:



SEGMENT FLOOR ARCH, MADE BY THE WIGHT FIRE PROOFING COMPANY.

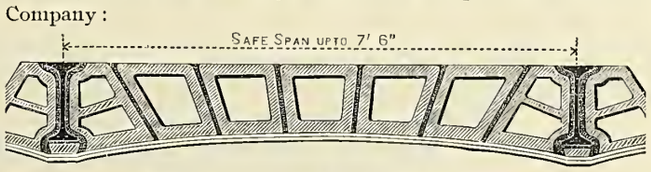


SEGMENT FLOOR ARCH OF THE PIONEER FIREPROOF CONSTRUCTION COMPANY.



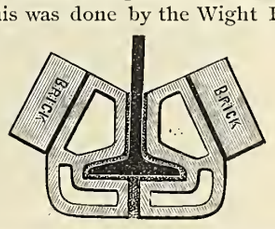
SEGMENT ROOF ARCH OF THE WIGHT FIRE PROOFING COMPANY,

Used also for floors in the Minnesota Hospital for the Insane at Richmond, Minn., up to 14 feet span.



SPECIAL PATTERN CONCAVE ARCH.
Weight, 40 pounds per square foot.

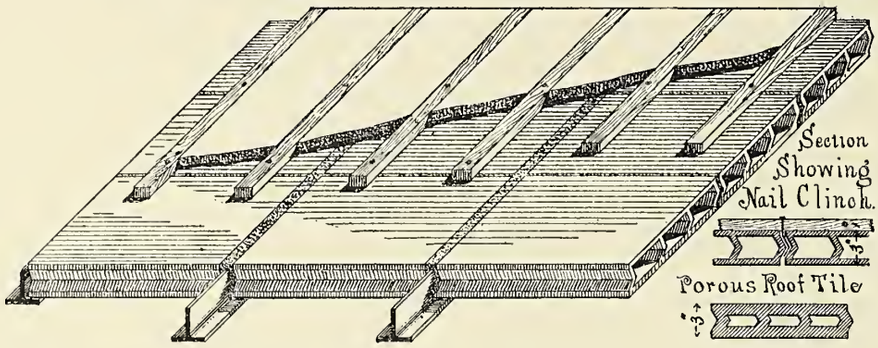
Sometimes brick arches are specified with protecting skewbacks for the beams. This was done by the Wight Fire Proofing Company in the Berry Varnish Works at Detroit, and the first floor of the United States government building at Pittsburgh. The illustration shows the detail of this construction.

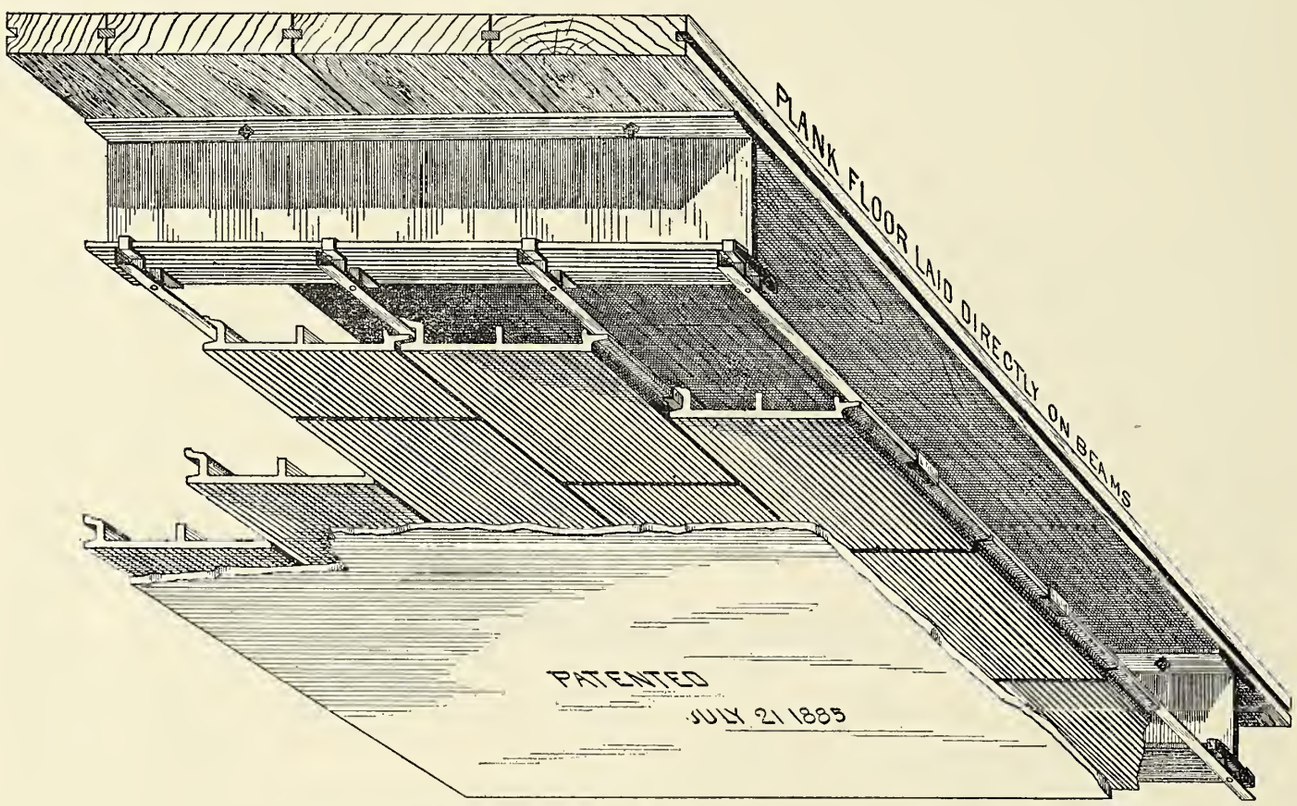


SKEWBACK TILE FOR BRICK ARCHES.

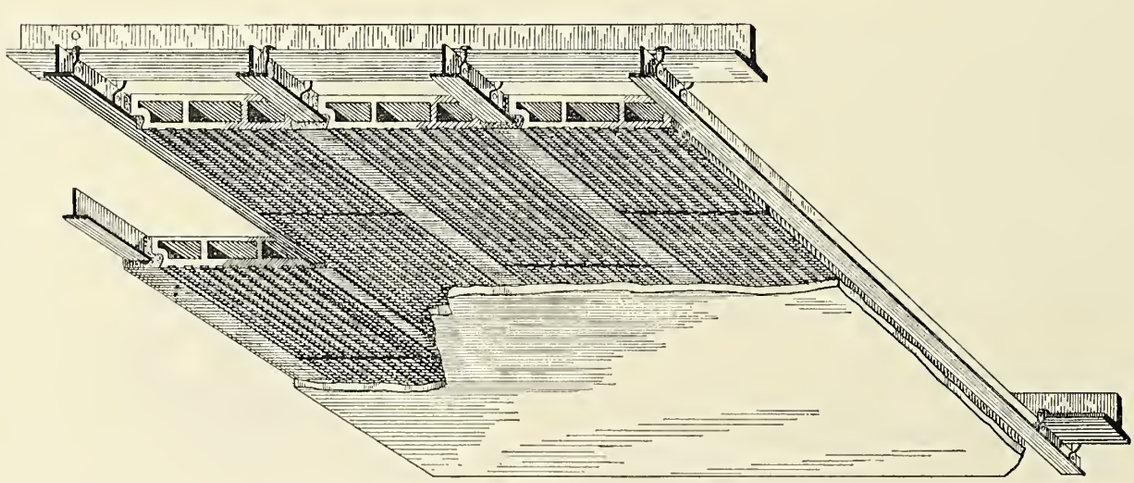
HOLLOW TILE ROOF

With Iron T's, 3inch Locked Tiles, Wood Strips & Concrete.





Tile Ceiling Attached to Angle-Iron under Iron Beams



3inch Hollow Tile Ceiling Attached to ⊥ Beams

for Attic or Suspended Ceilings.

ILLUSTRATIONS TO MR. WIGHT'S PAPER ON RECENT FIREPROOF BUILDING IN CHICAGO. PART V.

STEEL AND IRON CONSTRUCTION IN BUILDINGS.*

BY C. F. PURDY.

THE members of the Chicago Architectural Sketch Club gathered on June 15 to listen to a paper on steel construction, by John Meigs Ewen, but that gentleman having been called away from the city, Mr. C. F. Purdy consented to take his place and the result was an instructive lecture upon steel and iron as constructive materials. Mr. Purdy spoke in an informal manner, demonstrating particular points upon the blackboard, asking the members to question him freely upon any points they might wish further explained. The lecturer spoke of his youthful education when a certain preceptor had a remarkable ability for getting a trinity out of almost everything and said that some architects have a trinity in capability which consisted of the ability to design, construct and ornament. Mr. Purdy said he would confine his remarks to the structural part. It is not long that metal has been used largely in the construction of buildings, but as the forests are cut away we will use metal more and more, and in the larger structures now required, metals will be still more largely used and thus we come into iron and steel construction throughout the country. It meets the demand much better as regards strength and space than wood and brick. The needs of an architect are extremely wide and his knowledge must not only lie along the lines of reading and observation but must be deep in technical study and a large majority have been unable to obtain such. Thus the engineer is called in. Along the lines of construction that require technical study and skill is not only that of steel construction but plumbing, heating, lighting, ventilation, etc., and in these lines it is wise for architects to employ experts.

The architects in Chicago who have been most successful and prominent, and know the most, depend most upon technical engineers, and those that know the least seem to call for technical assistance the least. Each line is a life study, and yet an architect needs a general knowledge himself, and there are many that he can and does master. Steel construction, or rather metal construction, steel, wrought iron and cast iron, involves a definition to distinguish them, and the old differences are no longer true in composition and manufacture. Iron can be ordered with a tensile strength of 56,000 pounds, and steel for certain purposes of less strength. (Here followed a description of the several methods of manufacture of iron, crucible and open-hearth steel, etc.) Steel is used because it can be made cheaper, as it can be used in larger quantities and of uniform grade. Iron will stand a greater compressive strain than steel, and the latter a greater tensile strain, and the reason we cannot safely use iron in buildings is because its tensile strength is low. It is about 3,000 to 4,000 pounds to the square inch, and should be about 15,000 pounds. A great deal has been said about the relative value of iron and steel in columns. Cast iron will resist fire longer than steel or wrought iron, but the latter gives way slowly and the former is brittle. It is remarkable what a cast-iron column will stand. Fireproofing is, however, depended upon to protect both. The question of cost, of course, has largely to do with the use of metals, but the greater economy is in the use of steel, while pound for pound the cost is now about the same. The success is in the equal proportionment of the load. It will not do to draw off squares and say each of those is a column. In the Venetian building of which Holabird & Roche are the architects, where three and a half inches settlement has occurred, there has not been a variation of one-eighth of an inch.

As in walls the weight is one-half that of columns (i. e., on two sides and in columns on four sides), the latter must be figured as an additional weight, a point worth bearing in mind in reference to the bearing of foundations. Suppose that there are four columns with beams across, and a bay on one side; the supporting beams should be as one beam or it will deflect.

After some object lessons on the blackboard demonstrating points in the construction of floor beams and the general distribution of areas, the speaker said that to have even settlements there must be even distribution of loads with careful calculation of spandril loads with the floor loads to get this even distribution on columns. Spandril is used to mean the space between the columns and the windows from the top of the sill to the cap of the window below, and the spandril beam the connecting beam—a popular rather than a technical definition, which is supposed to have had its origin in the office of Burnham & Root.

*Abstract of lecture delivered before the Chicago Architectural Sketch Club, June 15, 1892.

The speaker referred to the fact that a good deal had been said by eastern newspapers about the danger of Chicago's high steel buildings sinking, and spoke of an old building that had stood for twenty years with a weight of 4,000 pounds to the square foot on the foundations, while the new "Fair" building, with foundations for eighteen stories, only weighed 2,900 pounds to the square foot, which shows the new buildings to be lighter and consequently less danger of settlement. We cannot drive piles in Chicago unless we drive them to a hard strata. Adler & Sullivan, in the German Opera House, has attempted to do this, but only time will tell how successfully; otherwise hold by friction, and it is not always even, as the clay is not of equal density, and even when we think the pile has struck something hard it may not have done so.

In regard to the iron that is used in floating foundations. A few months ago rails were the cheaper, but now beams can be obtained at a less price than rails. It is not known what effect the concrete in which the beams are bedded will have on the iron. It does not seem to affect it, but time only will tell. The safe way is to put in iron as solid as possible, and it should not be less than three-eighths of an inch in thickness, or ten-inch thirty-two-pound beams. Large beams are more economical than small; if you are going to use a twelve-inch forty-pound beam, see if you cannot use a fifteen-inch forty-one-pound beam, because it is something like forty per cent larger.

You who are to be architects and have no technical knowledge will find it wise to employ those who have, for it is surprising the amount of errors and consequent waste that occurs along those lines. Metal will be wasted. The girders may not carry the required loads, while the beams may be strong enough for twice the load. Mistakes are especially apt to occur in designing foundations. It is wonderful the amount of actual profit there is in the careful study of foundations. The center of gravity of resistance must always be equal to the center of resistance of the loads.

In floor construction there are a few principles that may be borne in mind. That referring to the use of large beams applies here. In regard to long or short spans it seems a matter of feasibility. Burnham & Root used long spans in the Masonic Temple, and short in the Ashland block, and it is not determined which is the more economical.

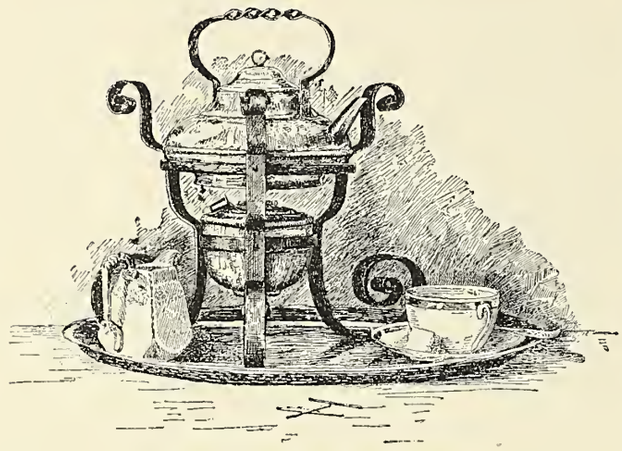
Adding a few inches to the thickness of floors to save in cost often results in additional cost through the extra brick in walls, etc. Avoid going through more than one connection if possible in the distribution of loads.

Architects should be more definite in their specifications and go more into detail as to how connections should be made. This affects bidding and often the highest bidder will give the only perfect job, and it is hard to correct after the work is once started. If specifications were more definite, work would be more satisfactory, and this can only come by a larger knowledge and the employment of technical men. In the stiffening of a building, while the riveting of beams and girders must give considerable resistance to lateral strain, in principle it cannot amount to a great deal. In the use of lateral rods the connections must be as strong as the rods, which is true in regard to all construction. The unit of strength is that of the weakest point. There is no definite data upon the relative strength of steel columns. The most serious problem in a steel construction is that of eccentric loading, and this should be reduced as much as possible in all construction. The Larimer column is most excellent in this and many respects especially for fireproofing, and in this the Phenix column is also serviceable.

In closing, the speaker urged the necessity of conservatism in the construction of high buildings, pointing out the fact that though we had become familiar with them that they were still a serious problem. It was feared that architects were forgetting this and that carelessness would ensue and as a result some building would fall and the general interest suffer from the ignorance, carelessness or inexperience of some architect. The use of cast iron in such buildings should be prohibited by law and no high building should be built without a special inspection by the city. Three thousand five hundred pounds per square foot, including weight of foundations, was a maximum load for Chicago soil. Specifications should say that steel beams should never be hammered or dropped from a wagon, as sudden jars were apt to crystallize the metal, but this could never occur when the beam was covered in the building.

At the conclusion of the lecture a hearty vote of thanks was tendered Mr. Purdy for his instructive remarks which were greatly appreciated by a large attendance of club members.

THE CHICAGO ART INSTITUTE SCHOOLS.



TEA KETTLE AND TRAY, BY "JAQUES."

THE enormous quantity of school work now on exhibition at the Art Institute is the best testimony that could be given as to the extended usefulness of this Chicago institution. Few only besides those immediately interested in it realize how much the Art Institute is doing to develop the latent ability of our native aspirants for reputation in the various lines of artistic work. If only a few of these 844 students should ever become professionals the West will contribute largely to swell the body of American artists; and it might be hoped as a result that the "art center" would thereby be moved a little nearer to Chicago. Next year, for a time, it will be the art center of the world. The permanent result of this to Chicago should be the establishment of all our art associations and schools, whether amateur or professional, on a permanent basis. There should be many of them, and there should be a generous rivalry between them to attain the best results. If the Art Institute is an association of amateurs and business men with abundant means and resources, that is no reason why it should do all the work of developing native talent.

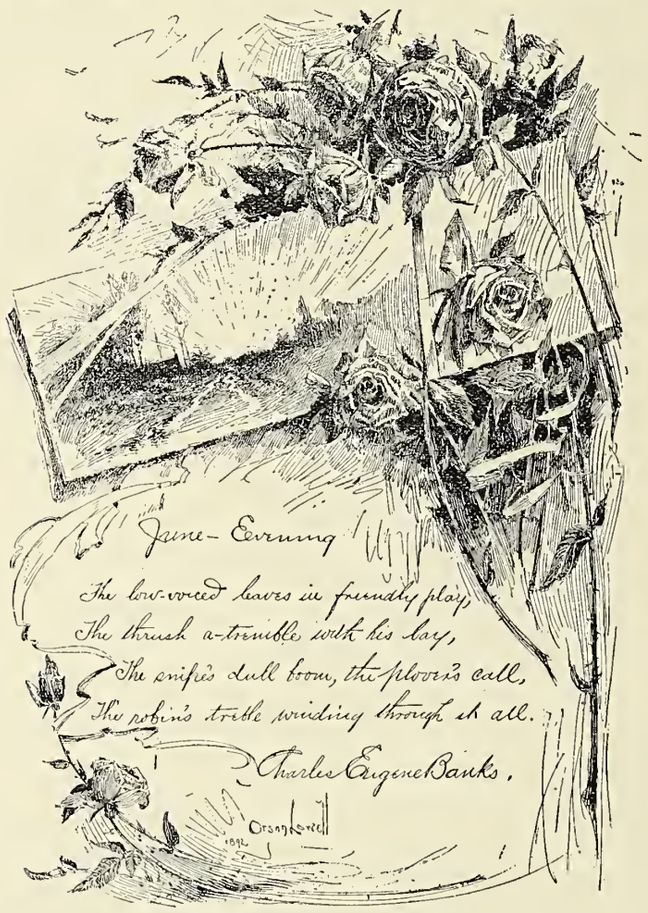


"INCONSOLABLE," BY J. H. HOLMES.

There is still a field for the Society of Artists — well named — which is a spirited and healthy organization. The National Academy of Design long since ceased to be national. It is rather a close corporation of New York artists, with a few from other seaboard cities admitted. The nation is now too large for any one city to be its art center. Already Philadelphia and Boston are rivals of New York on the eastern seacoast. Cincinnati and St. Louis make no mean pretentions; and the Society of Artists of Chicago, now fire-tested, must see that its time has come. The Art Institute has no reason to be jealous of it. It will reap the material advantages of the World's Exposition, and when that is over, with what must necessarily drift from the exposition into its custody, it will be at once a great museum; for it will also have a permanent building of its own in the heart of the city to receive these treasures.

The Art Palace at Jackson Park, which is to be the finest example of adapted Greek architecture in this country, and to a certain extent a permanent building which could easily be improved and made more permanent from time to time, should be allowed to remain and should be given over to a responsible association of professional artists.

It has recently been made public that the French government will allow a large number of the casts now in the Trocadero, at Paris, to be reproduced for the Columbian Exposition. These will undoubtedly go into the collections of the Art Institute after the great Exposition is closed. They will be mainly of interest to the students of the architectural classes, and will be to the Art Institute



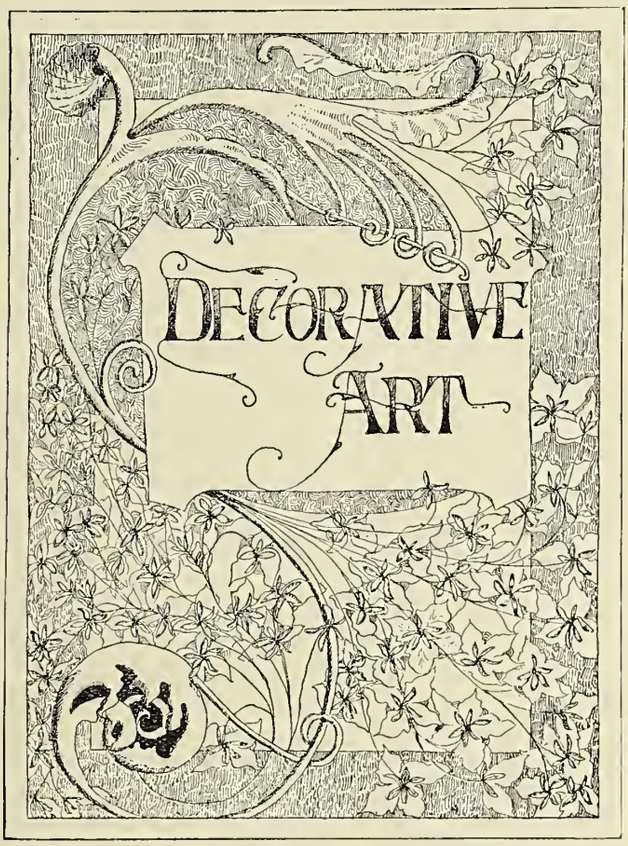
"JUNE — EVENING," BY ORSON LOWELL.

what the Willard collection of models is to the Metropolitan Museum at New York.

It is with these thoughts that we view the work of the past year of the students of the Art Institute which is now on free exhibition. Of these there has been enrolled the enormous number of 844, of which 433 were in the day schools giving their whole time to the work. Perhaps one-tenth of these may become professionals in one line or another of art work. For such they have only learned the rudiments of their craft. They have learned how to learn more. They have had the discipline to enable them to discipline themselves. They have simply learned how to do the *work* that will make artists of them. Nothing else will; not even that mysterious thing called "genius." For nothing will convince those who imagine they have it — but have it not — so much as *work*. It is because few appreciate this that few become

artists in any sense. This will-o'-the-wisp of a distorted imagination will fly before the realization of what they are when they are *inured* to hard work. And the harder the artist works the easier work becomes to him, so that in time when he does not feel longer the burden of work, he is free; and what was work is now pleasure. Then he begins to realize what he is and where he is in the realm of true art.

The other nine-tenths of these young men and women will go out into the world as prophets and apostles of art. What they have learned will make them in future life competent to judge between the good and the bad. They will grow to be intelligent



DESIGN FOR TITLE PAGE, BY ABBIE A. FREEMAN.

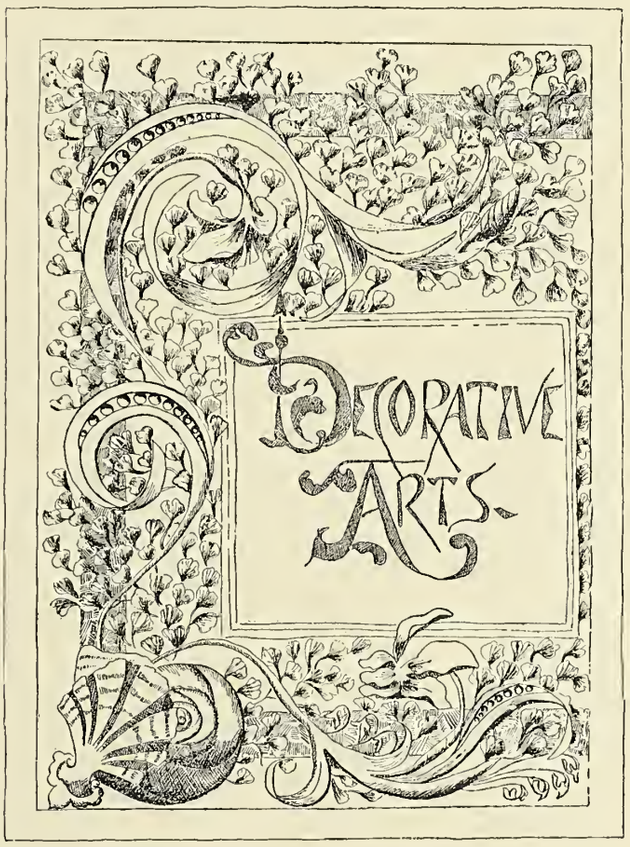
amateurs and not patronizing connoisseurs; and thus civilization will be the gainer. They will look back upon their crude efforts with a realization that these were the means of enabling them to be good judges of the works of others, and good judges of what is best, most elevating and refining in its influences. They will have more beautiful homes and will dress more becomingly on account of what they have done in this school; and what is better still will be enthusiastic lovers of all that is good and true and beautiful in life, as well as in art, and the active managers of the Art Institutes of the future.

Therefore we will look upon these exhibited results of study, not as pictures or works of art, but simply as evidences of how young men and women try to do their best. The prizes and honorable mentions are encouragements to those who did not get them to try harder the next time, and these do really more good to those who do not get them than to those who do. We regard this matter of prizes in school work as one between the students themselves, which does not interest the public, and therefore there is no occasion to say who received them. It would be interesting to reproduce in facsimile some of these prize drawings and the honorably mentioned designs in the classes in architecture and decorative designing, if only to assist in that encouragement which is due to those who did not get them; but unfortunately most of them, and the best, are in washes or colors that cannot be reproduced. Those that are given have been selected at random from the black and white drawings.

The scheme of the Art Institute is an ambitious one, but it has been pretty successfully carried out so far. There are no less than ten elementary classes, each covering a different subject. There are two courses of class lectures, one life and antique class and two afternoon and evening sketch classes. The day classes for study comprise:

1. A head and costume life class.
2. A nude life class.
3. A class for painting from still life.
4. An antique class.
5. A modeling class.
6. An architectural class.
7. An ornamental designing class.
8. An artistic anatomy class.
9. A class for pencil drawing from objects, and
10. A class for pen and ink drawing from objects.

Those the work of which will most interest our readers are the architectural and ornamental designing classes. The former has been in operation for three years and is under the direction of Louis J. Millet, graduate of the *École des Beaux Arts*, Paris, and a well-known decorative architect of Chicago, assisted by Walter F. Shattuck, graduate of the Architectural School of the University of Illinois. The latter is under Mr. Millet and Miss Grace Dutton Long. This has been in operation for a much longer time. The most serious work of the architectural classes has been during the past year, and they may be now considered as permanently established. The students are not attached to architects' offices, but give their whole time to the school. There are no night classes for the draftsmen as in the Institute of Technology at



DESIGN FOR TITLE PAGE, BY MABEL C. PATTERSON.

Boston. No prizes were given in the architectural classes this year but the honorable mention was carried off by a woman, Miss Stella Yeates.

And yet, while this beneficent institution was dispensing its honors to women, one woman has been its only stumbling block. But even though a real estate owner, her machinations have not prevailed, and the injunction to prevent the erection of the new Art Building on the lake front has been dissolved. Thus justice, for once at least, has overcome selfishness and the obstructive tactics which the law permits; and the granite walls of this temple will rise to be, if not a thing of beauty in the eyes of the critics, at least a joy forever to the multitudes who will in coming years receive its benefactions.

Before this is read the exhibition will be closed, and the Institute's property will be moved into the adjoining building for which it holds a lease until it will have possession of its new building.

THE NEW YORK STATE REGISTRATION BILL.

THE following is the amended bill which was passed by the New York state legislature, the amendments being but a slight change from the original bill previously passed; with some interesting correspondence in relation thereto, pending the governor's signature:

AN ACT TO REGULATE THE PRACTICE OF ARCHITECTURE.*

The People of the State of New York, represented in Senate and Assembly, do enact as follows:

SECTION 1. Within sixty days after the passage of this act, the American Institute of Architects, with the approval of the governor of the state of New York, shall appoint seven persons to constitute the New York state board of architects, three of whom shall be appointed to hold office for one year, and four of whom shall be appointed to hold office for two years. Such appointments shall be made in writing and be filed with the secretary of state.

SEC. 2. Upon the expiration of the term of office of each member of the state board of architects the American Institute of Architects shall appoint his successor for a term of two years in like manner. Each member shall hold over after the expiration of his term until his successor shall have been duly appointed and qualified.

SEC. 3. Any vacancy occurring in the membership of the board of architects shall be filled for the balance of the unexpired term in like manner. The members of the board shall serve without compensation or reimbursement for their services and expenses except as hereinafter provided.

SEC. 4. The members of the state board of architects shall, before entering upon the discharge of their duties, take and file with the secretary of the state the constitutional oath of office. They shall annually elect from their number a president, and a secretary who shall also be treasurer, to hold office for one year.

SEC. 5. The board may adopt rules and regulations to govern their proceedings not inconsistent with this act. The board may adopt a seal and the secretary shall have the care and custody thereof, and shall keep a record of all proceedings of the board, which shall be open to public examination.

SEC. 6. Five members of the board shall constitute a quorum; but the board may delegate the examination of applicants to a committee of less number to report the examination to the board.

SEC. 7. Special meetings of the board shall be called by the secretary upon the request of any two members by giving at least five days' written notice of the meeting to each member. The American Institute of Architects, with the approval of the governor of the state of New York, may adopt rules and regulations for the examination and licensing of applicants for licenses to practice architecture in accordance with the provisions of this act, and may amend, modify and repeal such rules and regulations from time to time.

SEC. 8. The board shall immediately upon the election of each officer thereof, and upon the adoption, repeal or modification of the rules and regulations for the licensing of applicants, file with the secretary of the state, and publish in at least two architectural journals, the name and postoffice address of each officer, and a copy of such rules and regulations, or the amendment, repeal or modification thereof.

SEC. 9. Provision shall be made by the state board of architects for holding examinations of applicants for license to practice architecture at least once a year, if there shall be any application therefor, in each of the judicial departments of the state, and any person over twenty-one years of age, upon the payment of a fee of five dollars to the board, shall be entitled to enter any examination appointed for determining the qualifications of applicants for such license.

SEC. 10. If the examination of any applicant for license shall be satisfactory to a majority of the board, a license shall be issued to the applicant authorizing him to practice the profession of architecture, upon the payment of an additional fee of fifteen dollars. A person who shall at the time of the passage of this act be engaged in the practice of architecture in this state shall be entitled to such a license without fee or examination, on presenting to the state board of architects an affidavit to that effect, or a license from a similarly constituted board in another state. Each person so licensed shall cause the same to be recorded in the clerk's office of the county of his residence, or, if non-resident of the state, in the county in this state in which he shall have an office, and the clerk shall record the same upon payment to him of his fees at the same rate as for recording a deed. Upon every change of such residence or office from such county to another county in this state, the holder of such license shall cause the same to be recorded in like manner in the clerk's office of the county to which such residence or office shall be changed.

SEC. 11. The board shall keep on file in the office of the secretary of state a correct list of all licensed architects. Any license so granted may be revoked by the state board of architects for gross ignorance, recklessness or dishonest practices of the holder thereof, but before any license shall be revoked such holder shall be entitled to at least twenty days' notice of the charge against him, and of the time and place within the county of his residence of the meeting of the board for hearing and determining of such charge.

SEC. 12. For such purpose the board shall have the powers of a court of record, sitting in the county in which their meeting shall be held, and to issue subpœnas and to compel the attendance and testimony of witnesses. Witnesses shall be entitled to the same fees as witnesses in a court of record, to be paid in like manner.

SEC. 13. The accused shall be entitled to the subpœna of the board for his witnesses, and a reasonable opportunity to produce his witnesses before them and to be heard in person or by counsel in open public trial; and no license shall be revoked except upon the unanimous vote of all members of the board. If a person shall pursue the practice of architecture in this state, or shall engage in this state in the business of preparing plans, specifications and preliminary data for the erection or alteration of buildings, or shall advertise or put out any sign or card designating himself as an architect, having an office or doing business within this state without a license therefor, in accordance with the provisions of this act, he shall be guilty of a misdemeanor, and upon conviction, shall be fined not less than fifty dollars, nor more than five hundred dollars.

SEC. 14. But nothing herein contained shall be construed to prohibit any person in this state from acting as designer of his own building, or as designer for any person employing him with full knowledge on the part of such employer that the person so employed is not a licensed architect in accordance with this act; nor to prohibit architects residing in other states and not having an office or carrying on a general business in this state from acting as architect for any building, or from visiting the state for such purpose in person; nor to prohibit students or employés of licensed architects from acting for or upon the authority of such licensed architects.

SEC. 15. The license fees received by the board may be expended for the payment of the traveling and other expenses of the members of the board.

SEC. 16. An itemized account of such receipts and expenditures shall be kept by the secretary of the board, and a report thereof for each year ending with the thirtieth day of September, duly verified by the affidavit of the secretary of the board, shall be filed with the secretary of state within sixty days thereafter.

SEC. 17. Any surplus of such fees exceeding five hundred dollars shall be paid annually by the board to the treasurer of the state.

SEC. 18. This act shall take effect immediately.

IN OPPOSITION TO ASSEMBLY BILL NO. 451, ENTITLED AN ACT TO REGULATE THE PRACTICE OF ARCHITECTURE.

NEW YORK, April 14, 1892.

Hon. Roswell P. Flower, Governor of the State of New York:

SIR,—The undersigned architects in the city of New York respectfully submit the following objections to Assembly Bill No. 451, entitled "An Act to Regulate the Practice of Architecture":

1. It should not be a function of the state to regulate esthetic matters. The "architecture" on a building could be scraped away and the building would still remain. It is no concern of the state whether an architect mixes up Doric with Gothic or otherwise produces architectural monstrosities. The need of the times is good building laws. It is the ignorance of construction, of building, that the state needs to guard itself against. Architects should be compelled by suitable building laws to plan buildings safely, whether they know enough to do so or not, and the truth is that the overwhelming majority of architects do not know how to build safely and well, no matter how competent they may be to draw pretty pictures, or answer correctly questions on the five orders of architecture.

2. No laws requiring the licensing of architects exist in any country in the world, while in every large city, abroad and at home, building laws conserve the public interests.

3. The bill means the exclusion of architects in other states from doing business in this state, except to compete for some special building (Sec. 14, line 6), say when a prize is offered for plans for a public building. It means a restriction on trade, and is therefore against public policy. It is of the class of laws that the United States courts have brushed away, such as laws requiring commercial travelers to take out drummers' licenses in certain states.

4. Such a law would lead to reprisals by other states. If the law is good for New York state, it is good for all the other states. New York city architects have a clientage coëxtensive with the boundaries of this country. When an expensive residence is to be erected at Newport, Rhode Island, or Bar Harbor, Maine, or at Long Branch, New Jersey, or a great hotel at St. Augustine or Tampa, Florida, a New York architect is employed. New York capitalists and the great moneyed corporations centered in this city send their home architects to put up buildings which they need, even to very distant points. A New York architect is now in Germany erecting a building for a New York insurance company. Shall architects in this state cut off their brethren in other states, and not expect to be cut off from practice in return? Similar laws adopted by other states would deprive New York city architects from a vast amount of work, and be more hurt to them than to the architects anywhere else. If licenses were a universal requirement among the states, some New York city architects would require to go through many distinct examinations, and run the risk of not getting a license at all in some cases, and paying for the privilege of applying in all cases.

5. Such a law would work an injury to country builders who carry on business both as builders and architects. Illustrated publications giving excellent designs for country houses reach the hands of every country builder, and it is not to the interest of residents in the small towns and agricultural portions of this state that builders should be prohibited from preparing plans and practicing as architects as well as builders. It is folly to require that licenses should be taken out in these cases. New York city architects have nothing to fear from the competition of country builders, however much architects in small cities have to complain on this score. Many of the most capable architects are former carpenters or masons.

6. The bill makes no distinction between an architect who never has and perhaps never will draw plans for anything other than frame houses and barns, and architects with a general practice in large cities. All are put on the same plane, and must show themselves equally capable, as a licensee can practice anywhere in the state after he receives his parchment.

7. If the bill proposed to make an architect responsible to an owner for the safety of his building it would have some merit, but it does nothing of the kind. In New York city an architect's plans must first be approved by the building department and the health department, and the supposition is that the building will be safe and sanitary. It seems to be somewhat superfluous to examine the architect and his plans as well. A candidate might know much about "architecture" and very little about construction.

8. The bill has many bad features. A license may be revoked for gross negligence and recklessness (Sec. 11, line 3), not a word is said about gross ignorance. A license may be revoked for "dishonest practices." It does not say what this means. Perhaps taking a commission from a contractor would be deemed dishonest practice. But it may mean that if an architect borrows from some person a sum of money which he is unable or unwilling to repay, that will be deemed a sufficient reason for the revocation of his license.

9. The bill puts a premium on a non-resident architect having an office in New York city. A Jerseyman will be entitled to a license in this state because he practices here. When his own state passes a similar law he will be entitled to a license there as well, without fee or examination, while a New York resident if he desires to do any business as an architect in New Jersey will have to go through a formal examination and pay for a license.

10. The bill proposes to set up architectural court, with power to issue subpœnas, and to compel the attendance and testimony of witnesses (Sec 13). And if a builder should designate himself an architect, unless he has a license therefor, he is to be deemed guilty of a misdemeanor. These propositions are ridiculous. Our country is too new, and the demand for ability in men as builders and architects too great to restrict the action of individuals within proper lines of enterprise by any such law.

In conclusion, your petitioners beg to state that this is not a case of "sour grapes," as each signer hereof would be entitled to a license under the proposed law. They oppose the bill through

*Introduced by Mr. Guenther, read once and referred to the committee on general laws, January 29, 1892. Assembly Bill 451.

a seuse of public duty, as well as because their individual interests would be affected by such a law, and also to save from its ill-effects many architects who have signified their approval of licensing architects without understanding the real import of this bill. Only one side of the question was heard by the Assembly and the Senate. We respectfully ask you to veto the bill.

Very respectfully,

WILLIAM J. FRYER, architect and engineer, 19 Broadway.

CORNELIUS O'REILLY, architect and builder, 121 East Forty-fourth street.

THOMAS GRAHAM, of C. Graham & Sons, architects and builders, corner Thirty-uinth street and Madison avenue.

J. A. WOOD, architect, 153 Broadway.

FRANCIS H. KIMBAL, architect, 40 Broadway.

BRIEF SUBMITTED BY THE EXECUTIVE COMMITTEE OF THE AMERICAN INSTITUTE OF ARCHITECTS.

Hon. Roswell P. Flower, Governor of the State of New York:

SIR,—An argument made by sundry architects in opposition to your approval of Assembly Bill No. 451, entitled "An Act to Regulate the Practice of Architecture," was brought to the notice of a meeting of the Executive Committee of the American Institute of Architects held on April 30, at which were present: Mr. Edward H. Kendall, of New York, president of the Institute; Mr. Richard M. Hunt and Mr. C. F. McKim, of New York; Mr. Alfred Stone, of Providence, Rhode Island; Mr. George B. Ferry, of Milwaukee, Wisconsin; and Messrs. Samuel A. Treat and Dankmar Adler, of Chicago.

I have been instructed by the Executive Committee to submit the following to your notice. The committee regrets that any persons should maintain that architecture is merely the application of decorative features to buildings, and admits that were this assumption justified, there would be no reason for invoking the authority of the state to determine whether or not any person is qualified to call himself an architect.

The Constitution of the American Institute of Architects thus defines the status of an architect: "An architect is a professioual person whose occupation consists in originating and supplying artistic and scientific data, preliminary to aud in connection with the construction of buildiugs, their appurtenances and decorations; in supervising the operations of contractors therefor; and in preparing contracts between the proprietors and coutractors thereof." This definition is accepted by architects and laymen throughout the civilized world, and in the discharge of the functions and duties thereby implied, many millions of dollars are entrusted annually to the professional care of the architects of the State of New York, and the life and health, and the safety of life and limb of many of its citizens are made dependent upon the greater or less degree of capacity, knowledge and skill possessed by these architects.

The Executive Committee takes the liberty in the followiug pages of traversing the arguments advanced against Assembly Bill No. 451, and craves your attention, not from the standpoint of the architect, who has no more claim for assistance or protection from the state than any other citizen, but because this bill is conceived for the service and benefit of the people and of the state at large.

Taking up the remonstrance referred to in the order of its paragraphs, the committee begs leave to state:

1. It is not intended that Assembly Bill No. 451 shall regulate esthetic matters. The architecture of a buildiug is not, in its true acceptation, something that can be "be scraped away," but it is the design of the building in its eutirety, and embraces its construction, arrangement, equipment and adornment, all determined with regard and reference to each other and in a well-designed structure so interdependent, that neither can be tampered with without injury to the others and to the whole building. It is true that "it is no concern of the state, whether an architect mixes up Doric with Gothic," and it is also true that it is "ignorance of construction of building that the state needs to guard itself against." If it is also true that an "overwhelming majority of architects do not know how to build safely and well," then it is time to protect the people of the state frou the possible disastrous effects of this alleged ignorance ou the part of architects of the most vital essentials of the professioual equipment. It is the purpose of Assembly Bill No. 451 to prevent persons who "do not know how to build safely and well" from calling themselves architects and to make the appellation "architect" when applied to the name of anyone in the State of New York a reasonable guarantee to the citizen employing him, that its bearer knows "how to build safely and well."

2. While it is true that "no laws requiring the *licensing* of architects exist in any country in the world," yet in Germany and Austria no one may call himself an architect until after he has demonstrated in an examination by a government board of exauiners that he is possessed of the knowledge of "how to build safely and well," while in England such examinations as to skill as constructors are being resisted by the architects themselves, who appear to deem themselves above what they seem pleased to treat as a sordid and degrading consideration of their status as artists. In France the legislative requirements and current legal decisions have clearly defined the liabilities for malpractice of architects to their clients and to the public. Therefore, in that country only those who are possessed of a high degree of knowledge and skill dare to face the responsibilities incident to the assumption of the title "architect," and the discharge of the functions incident thereto.

3. If the passage of Assembly Bill No. 451 "ueans the exclusion of architects in other states frou doing business in this state," this exclusion can only apply to those who cannot "build safely and well," for those who can do so will not experience difficulty in demonstrating to the exauining board their possession of a degree of knowledge and skill sufficient to entitle them to a license. The passage of this bill does not "mean a restriction of trade," and is not "therefore against public policy." On the contrary, being intended to prevent the waste of public and of private funds in imperfect and unsafe buildings, it will encourage and increase the volume of trade iu good and safe building, and will protect the public against the evils of buildings constructed in ignorance of the processes of safe and good construction.

4. If "such a law would lead to reprisals by other states," and "if the law is good for New York it is good for all the other states," it is to be hoped by every citizen that all other states will make such reprisals and will follow the exauiple of the Euipire State. But if other states do not follow our exauiple, the architects of the State of New York will stand even higher than they do now, for they will then be the only oues in the United States who possess a higher claim to the title of "architect" than that of having chosen to adopt it for themselves. It is no hardship for one who knows "how to build safely and well" to demonstrate to dozens of State Examining Boards the possessiou of such knowledge, and such person would greatly prefer to do this if by his so doing those not not possessed of that knowledge could be eliminated from the list of his competitors.

5. Such law would not "work an iujury to country builders who carry on business both as builders and architects." They need only demonstrate to the exauining board that they "know how to build safely and well" to obtain license to call themselves architects. But if they cannot make such demonstration, there is still nothing in the bill to prevent them from making and selling plans of buildiugs. The law would only prohibit theui from writiug the word "architect" after their names. While it would be folly, as these objectors state, to require that licenses be taken out to protect the architects of New York city, or of any other place from the coupetition of country builders, it is not folly to protect the people of the State of New York, in city and country, from being imposed upon by butchers and bakers, by tailors and shoemakers, or even by draftsmen and carpenters, who, unable to earn a living at their legitimate trades, endeavor to impose themselves upon the community as architects.

6. It will certainly work no harm to the people of the country districts of the state if by the operation of the proposed law they are not put on a plane inferior to that occupied by the inhabitants of cities. Nor will it harm the poor of this state if the law demands that the architects who build their houses shall be capable and well-iuformed men, and does not confine that privilege to the rich.

7. The good architects of this state would certainly not object to a definite statement in legal enactuent of their responsibilities to their clients and to the public. Well-informed and competent architects would carry out far more intelligently aud successfully the provisions of our existing building laws than the kind of architect who is permitted so to call himself under present conditious.

8. As a license cauuot be granted except to those who have proved that they are not ignorant, it is to be presumed that no provision for its revocation for "gross ignorance" is necessary. It certainly cannot be objected to, that the proposed law provides penalties upon architects for malfeasance of trust, for collusion with contractors, for bribe taking, and for dishonest and corrupt practice generally.

9. The hypothetical case of the possible advantage which the stray Jerseyuan might gain over the New Yorkers is too trivial for consideration.

10. It has beeu before stated that, under the proposed law, anyone who can demonstrate that he is an architect, namely, that he "knows how to build safely and well," must be granted a license so to call himself. It is certainly conservative of the financial interests of the people as well as of safety of life and limb, if the law makes it a misdemeanor for one who knows nothing of construction to call himself an architect. Yes, "this country is too new, and the demand for ability in men as builders and architects too great" to permit ignorant and incompetent men to foist themselves upon the public and waste its treasure and imperil the lives of citizens under cover of a self-assumed title implying the possession of a high degree of expert skill and knowledge. It is not an illegitimate restriction of individual enterprise to prohibit a person who does not know "how to build safely and well" from calling himself an architect.

Finally, the Executive Committee wishes to express its sincere regret that persons practising as architects should entertain so low an opinion of their chosen profession and of themselves as to proclaim to as high an authority as the governor of the Empire State of this union, that architects are but picture makers and in a state of ignorance as to all matters relating to safe and good building.

All of which is most respectfully submitted in the hope that you will approve the proposed bill.

I remain, very respectfully yours, on behalf of the Executive Committee of the American Institute of Architects,

DANKMAR ADLER, Secretary, A. I. A.

PALLISER, PALLISER & CO., 24 East Forty-second street, New York, have just published a neatly bound portfolio (?) of photo-autogravure prints of the public statues and monuments of New York city, thirty-five in number. It is handsomely gotten up with gold embossed title and gilded edges. It is a very desirable and appropriate parlor table ornament. Price $1.50.

OUR ILLUSTRATIONS.

House for H. N. May, Chicago; J. L. Silsbee, architect.

Mont. St. Michel, upper part; drawn by J. W. Robbins, Boston.

St. Rose Church, St. Louis, Missouri; Barnett & Haynes, architects.

The Ostend Gate, Bruges, Belgium; F. M. Andrews, Chicago; del. from photo.

Dwelling for H. C. Sprague, Hyde Park, Kansas City, Missouri; Walter C. Root, architect.

Refectory for Humboldt Park, Chicago; W. L. B. Jenney and W. B. Mundie, architects.

Residence for O. H. Morgan, Highland Park, Illinois; W. W. Boyington & Co., architects.

Residence for Robert E. Filley, Lindel avenue, St. Louis, Missouri; E. C. Janssen, architect.

Residence for Mrs. Annalkrausse, Albion place, St. Louis, Missouri; E. C. Janssen, architect.

Mann Hall, University of the Southland, Bluffton, Alabama; George Mort. Pollard, architect.

Houses for The Winner Investment Company, Kansas City, Missouri; James & James, architects—double page.

Amateur Athletic Association Building and Lyceum Theater, Memphis, Tennessee; Edbrooke & Burnham, architects, Chicago.

Saint Teresa Church, San Francisco, California; Shea & Shea, architects. Exterior and interior views are given, occupying two pages.

Laboratories of the Medical and Pharmaceutical Schools of Northwestern University, Chicago; S. S. Beman, architect. The building is on Dearborn street between Twenty-fourth and Twenty-fifth streets, adjoining the new Wesley Hospital. The practical lectures and the clinical instruction in medicine and surgery will continue to be given in the old college building known as Chicago Medical College.

Photogravure Plate: Residence of Doctor Bell, Denver, Colorado; Varian & Sterner, architects. Residence at Cincinnati.

PHOTOGRAVURE PLATES.

(*Issued only to subscribers for the Photogravure edition.*)

Entrance, The Temple, Chicago, Burnham & Root, architects.

Entrance, Masonic Temple, Chicago; Burnham & Root, architects.

Entrance, Rand & McNally Building, Chicago; Burnham & Root, architects.

Iron Trusses, Manufactures and Liberal Arts Building; George B. Post, architect.

Entrance, Owings Office Building, Chicago; Henry Ives Cobb and Charles S. Frost, architects.

Construction, Machinery Hall, World's Columbian Exposition, Chicago; Peabody & Stearns, architects, Boston.

Traveling Derrick and Construction, Manufactures and Liberal Arts Building, World's Columbian Exposition, Chicago; George B. Post, architect, New York.

NEW PUBLICATIONS.

BRICK FOR STREET PAVEMENTS. An account of tests made of bricks and paving blocks, with a brief discussion of street pavements and the method of constructing them. By M. D. Burke, C. E. 8vo, paper. Price $1, sent by mail. Robert Clarke & Co., publishers, Cincinnati.

This is an interesting discussion of a vexed question, occupying 86 pages, and wherein the author endeavors to show, all things considered, for a good roadway, brick is a better, cheaper and more durable material than either granite, cobblestone, asphalt, cedar blocks or macadam. Space prevents a more extended notice of the carefully prepared and analytical text-matter of the book, which is of peculiar interest to those who have the making of the streets of cities and towns, and brickmakers especially are given a few valuable pointers in the chemistry and ceramics of their art, which ought to be invaluable to them.

A TEXT BOOK ON RETAINING WALLS AND MASONRY DAMS, by Mansfield Merriman, Professor of Civil Engineering in Lehigh University. A. C. McClurg & Co., 117 Wabash avenue, Chicago. Price $2.00.

Mansfield Merriman, C.E., Ph.D., is well known as Professor of Civil Engineering in Lehigh University, at South Bethlehem, Pennsylvania, and as the author of several mathematical works on hydraulics and bridge design, some of which have passed through three or four editions. The text book on "Retaining Walls and Masonry Dams" is issued in uniform style with his previous treatises, and embraces 122 pages octavo. It has a table of contents but no index. The subject matter is arranged in five chapters, thus: Earthwork slopes, the lateral pressure of earth, investigation of retaining walls, design of retaining walls and masonry dams. This book is not a treatise on the construction of retaining walls and masonry dams, but is confined to the development of the mathematical formulæ used in calculating the stability of such structures, and is evidently intended for students of engineering, to whose uses it seems well adapted. A knowledge of trigonometry is a prerequisite. Numerous examples are given to test and illustrate the practical application of the formulæ developed. The value of the book to practical men would be increased if in the summary in Article II each case for which a formula is prescribed were accompanied by an illustration showing clearly the meaning of the letters and terms employed. A busy man is apt to be in too much of a hurry to hunt back through forty pages, more or less, to find what P, O, etc., designate. An illustrative cut on the same page would show everything at a glance. To a college student with all the previous pages fresh in his mind the cut is less important. On page 92 by a typographical error the author is made to say, "The earth must be thrown loosely against the wall." This should read, "The earth must *not* be thrown loosely against the wall." The table of weights of materials in Chapter III agrees fairly with other authorities except in the item of brickwork, for which 100 pounds per cubic foot is light. Louis de Coppet Berg gives 110 to 112 pounds, Kidder gives 112 to 140 pounds, Trautwine gives 100 to 140 pounds and the United States Government Practice allows 112 pounds.

THE ARCHITECTS' AND BUILDERS' POCKET-BOOK, by Frank Eugene Kidder; Ninth edition, 1892; New York, John Wiley & Sons. Price $4.00.

It is needless to speak in detail of the contents of Kidder's handbook; its character is probably known to every member of the architectural profession. Without pretense of original authority it collates tables, formulæ and miscellaneous data, giving usually the authority relied on or quoted from. Lacking thus specialization and original authority it does not take the place of monographs on special topics; but, subject to this qualification, it is reasonably trustworthy and is invaluable for reference on the hundreds of bits of data that one needs to use, but which without daily use he can hardly carry in his head and for which he cannot spend time to hunt through circulars, catalogues and scattered works. This ninth and latest differs from the earlier editions only in the way of bringing down to date and the addition of much new matter of a nature akin to contents of former editions. The tables relating to iron and steel construction have been entirely rewritten to adapt them to changed conditions; and about one hundred pages have been added to Part II, which deals with construction in its various phases. To the miscellaneous matter in Part III eighty pages have been added and the whole part has been rearranged. A sixty-page glossary has been added at end of the volume. Among matters appearing for first time we note the data relating to treatment of foundations on compressible soil, tables of strength of stones, data relating to applications of electricity.

TIMBER PHYSICS. Part I, Preliminary Report Compiled by B. F. Fernow, Chief of Forestry Division. Published by Authority of the Secretary of Agriculture. Bulletin No. 6.

The railway system of the United States requires 80,000,000 ties every year at about 38 cents each, or in round numbers $30,000,000 annually. By proper selection of timber and other well known but too seldom used methods, the durability of these ties can be doubled, whereby 40,000,000 ties and $5,000,000 hard cash per annum can be saved. This is but a single illustration of the enormous waste of material and capital which results from ignorance of the physical properties of the timber products of the United States. The Forestry Division of the Department of Agriculture seeks to check these wastes and stop these leaks by obtaining and circulating accurate information on all the practical qualities, uses and adaptabilities of American timber. Bulletin No. 6, containing sixty quarto pages in pamphlet form, is the preliminary report intended to enlighten congress and the public concerning the urgent need for such work as the forestry division is doing, to show what has been done in this direction in other countries and to explain the practical operations of this most important department.

This is one of the most interesting and valuable works which have ever been issued by the government printing office and should have the widest possible circulation. Besides a very convincing account of the losses in every state and in innumerable branches of industry, which annually result from ignorance of the qualities of our native timber, its uses, preservation, etc., the report gives a most valuable list of books, essays, etc., both foreign and American, relating to timber, and a very valuable illustrated paper by Prof. J. B. Johnson, of Washington University, St. Louis, upon the properties of timber and the timber tests made at the university test laboratory, which is one of the finest in the United States. An appendix gives excellent illustrations of the testing machinery used by Professor Johnson, and there are numerous sample records of the tests made. The report closes with a comprehensive index which adds to its value for reference purposes.

DIAGRAMS, FORMULAS AND TABLES FOR BRIDGE ENGINEERS AND ARCHITECTS, by Malverd A. Howe, C.E. Price 25 cents.

Howe's Diagrams, Formulas and Tables are a reprint in pamphlet form, thirty-eight pages 9 by 12, of a series of papers which appeared in the magazine *Mechanics*, during the year 1890. This pamphlet was first published for private circulation. The surplus copies are now offered at the extremely low price of 25 cents each. The author is well known among engineers as Professor of Civil Engineering at the Rose Polytechnic Institute, Terre Haute, Indiana, and is a recognized authority. While especially addressed to bridge engineers the book is of value to architects for its tables of weights of building materials, embracing some items, such as the weights of terra cotta ceiling and of tin roofing, which are not given by the usual handbooks and are difficult to obtain elsewhere. The formulæ for the strength of rafters and purlins involve trigonometric functions. They are not especially useful to architects since they apply only to uniform loading, and for such cases the tables in Kidder's, Trautwine's, Woodbury's, and other handbooks are much more convenient and safe than trigonometric calculations. This objection does not apply to the bridge formulæ, however, the variety of section being too great for the use of tables. The standard bridge specifications of Cooper, Waddell and Bouscaren are liberally quoted, and the methods and data given conform to the latest practice among bridge engineers. Numerous

diagrams are given for determining the sizes of members by inspection. There is also a good index. To both architects and engineers the book cannot fail to be worth many times the price at which it is sold.

BUILDING OUTLOOK.

OFFICE OF THE INLAND ARCHITECT,
CHICAGO, Illinois, June 20, 1892.

Architects, constructing engineers and contractors in many sections of the country are reporting new work, new enterprises and schemes of various kinds which are brought to their consideration. The appearances today are that the latter half of the year will be more active than the first half, not only in ordinary house construction, but in engineering enterprises, railroad work, the manufacture of equipments for railroads, and the construction of machinery of many kinds. While the country is not on the eve of a general expansion, it is almost face to face with a heavier movement and greater activity. This is due partly to the fact that prices have reached a very low point, and because reserves and stocks usually kept on hand have been depleted to the lowest advisable limit. Even the manufacturers of building material are not loaded up with marketable stocks. Abundant supplies are to be had in all markets of all kinds of material, but the policy has been followed of keeping material in a raw rather than a finished state, waiting for demand to come in sight. This is a policy which the managers of all industries are following; hence the moderate competition observable.

Much new manufacturing is predicted, but the work actually done is moderate in volume because of the narrow margins, and the lack of urgent need for additional shop and mill room. Throughout the western states a healthy commercial and industrial feeling exists; there is but little idleness. In the agricultural regions new land is being reduced to cultivation as rapidly, perhaps, as it is safe to do so. Prices for farm products are satisfactory, and sales are made without difficulty; and a good export trade at the Atlantic coast is keeping that end of the line well up.

The mining regions throughout the Rocky Mountain district are not quite as prosperous all through as in times past, and some mines are shutting down. Railroad schemes are buddiug in the southwest under the magic wand of Gould and Huntingdon. This has been the poorest railroad year for twelve or fifteen years past, and it is the opinion of railroad men and others familiar with such things that next year will mark an increase in activity, and perhaps a sudden bound. A large amount of tonnage is under contract at the lake yards, and there is more projected shipbuilding work than ever in our history. The shops and factories of the New Englaud and middle states are pretty well crowded with work. The spring season has passed without serious labor difficulties, and there is now less probability of disturbances and misunderstandings than in the past.

SYNOPSIS OF BUILDING NEWS.

Architects are invited to furnish for publication in this department monthly or occasional reports of their new work before the letting of contracts. Reports of buildings costing less than $5,000 are not published.

Buffalo, N. Y.—Architect W. H. Archer reports the following work: Society building for St. Mary's Lyceum, Dunkirk, New York; tin roof; 58 by 100 feet; three stories and basement; pressed brick and cut stone front, terra cotta enrichment, copper, etc. Large store first floor; reception parlors, billiard, society and toilet rooms and lavatories, second floor; assembly room, stage and dressing rooms, third floor. Hardwood and pine finish; plate glass windows, steel girders, mantel grates, tile work, gas fixtures, etc. Schools, Tonawanda, New York: Two eight-room schoolhouses, two stories and basement; brick with Medina sandstone basement and trimmings; hollow tile, concrete, maple floors, pine finish, galvanized iron and tin work; schoolrooms, wardrobes, lavatories and toilet rooms for both sexes; hot-air heating and ventilating,; glass, seating, blackboards and gas fixtures, electric bells, etc.; cost $30,000. Society building for the Young Men's Christian Association of North Tonawanda, New York: 132 by 112 feet; brick and stone, tin roof, galvanized iron and stone trimmings; four stories high; comprising suits of association rooms, baths 50 by 50 feet, gymnasium 50 by 50 by 28 feet; public hall 40 by 60 by 20, bowling alley and four stores. Iron girders and columns, mantels, sanitary plumbing, steam heating, gas and electric light, plate glass, concretiug, etc.; cost $45,000. Residence for Mr. Rogers, Atlanta, Georgia: Frame and brick, two stories and basement, hardwood finish, parlors, reception hall, diuing and bath rooms, lavatory, kitchen, bed chambers, columnar portico and loggia, bevel plate doors, plate windows, carving, mantels, gas fixtures, tile, bath appointments, heating aud plumbing; cost $12,000. Manufactory building, West Superior, Wisconsin: Kilns, storehouses, derricks, overhead switches, tracks, furnaces, wharves and shipping sheds, offices; cost $10,000. Hotel Gratiot, Dunkirk, New York: Hotel bar, carving, bevel plate mirrors, fixtures, pumps, marble and oak work, entrance porch, couchere and loggia for same, brick, carved stone, tin, etc. Hotel Archer, North Tonawanda, New York: Frame and stone building, 40 by 80 feet, three stories, with accommodations for seventy guests; hardwood finish, tin roof, electric bells and light, heating and ventilating apparatus.

Chicago, Ill.—Architect A. F. Hussander: For A. Peterson, on Clark street nçar Wellington avenue, a three-story and basement store and flat building, 24 by 90 feet in size; to be of pressed brick and stone front, have gravel roof, sanitary improvements, and cost about $10,000. For Mrs. Mary Sibley, on Wabash avenue near Forty-fifth street, a two-story aud basement flat building, 22 by 67 feet in size; to have a stone front, gravel roof, hardwood interior, electric wiring, furnace heating; cost $8,000. Also making plans for a four-story store and flat building, 140 by 100 feet in size; to cost about $50,000; it will have two fronts of stone with galvanized iron bays and cornice, slate tower and gravel roof, gas fireplaces and ranges, and all the modern sanitary improvements.

Architects Wilson & Marble: For J. G. Wilden, at 6332 Cottage Grove avenue, a four-story store, flat and hall building; to have a stone front, galvanized iron bays, electric light, steam heat, etc. For John Agar, on Oakdale avenue near Evanston avenue, a three-story residence; to have a handsome stone front, hardwood iuterior, electric wiring, modern heating apparatus; also a two-story stable; cost $20,000. For A. W. Hester, on Diversey street, two three-story and basement residences, of stone fronts, slate, mansard and gravel roof, hardwood finish throughout, hot-water heating, electric light, and the best of modern conveniences; cost about $40,000. For Thomas Sennott, on Harrison street, two two-story residences, of pressed brick and stone fronts, with galvanized iron bay windows, electric light, steam heating, all improvements; cost about $12,000. For Antoine Delfosse, to be erected corner Vincennes avenue and Boulevard place, a four-story apartment house, 100 by 143 feet in size; to cost about $100,000; it will have two fronts of buff pressed brick, with buff Bedford stone trimmings, hardwood interior finish, steam heat, electric light, and the best of sanitary and modern conveniences.

Architect W. L. Carroll: For R. A. Greifenhagen, at 447 to 451 Dearborn avenue, a four-story apartment house, 78 by 80 feet in size; to cost about $50,000; the front will be of rockfaced Bedford stone of handsome design, with slate mansard roof; the interior will be finished in hardwoods throughout, and have electric light, steam heating, marble and tile work, and the best of modern improvements. For James Keys, a three-story flat building, 24 by 70 feet in size; to be of pressed brick and stone front, with slate mansard, hardwood finish, etc.; to be erected on Laflin street near Taylor. For V. C. Vosburgh he is making plans for addition and remodeling building on Leavitt street near Van Buren.

Architect H. M. Hansen: For A. Chytraus, on Arlington place near Clark street; a three-story residence; 30 by 57 feet in size; to cost $12,000. To have a stone front, slate and gravel roof, hardwood finish throughout, hot-water heating, etc.

Architect Julius H. Huber: For Henry Niemann, on Oakdale avenue near Evanston avenue, a three-story and basement flat building, 25 by 70 feet in size; to cost about $15,000. The first story will be of stone and above of buff pressed brick with stone trimmings. The interior will be finished in hardwood, and have steam heating, electric light, the sanitary and modern conveniences. For Edward Bingle, corner of Southport and Belmont avenues; a two-story store and flat building, of pressed brick and stoue front; to cost $8,000. For Mrs. Mary O'Neill, on Newport avenue; a two-story basement and attic residence; 38 by 59 feet in size; to cost about $15,000. To be of frame with stone basement, all hardwood finish for interior, electric light, steam heat, etc. For O. M. & E. Hagen, corner Wellington avenue and Center street; a three-story and cellar flat building, of pressed brick and stone front; to cost $10,000.

Architect William Thomas: For Mrs. Elizabeth A. Horsman, two three-story and basement residences, to be erected corner of Jackson boulevard and Washtenaw avenue. They will have fronts of Bedford stone with copper bays and cornices, hardwood interior finish, all improvements, and cost $25,000. For M. Ryan, on Grand boulevard; a three-story residence, to have a stone front, slate roof, hardwood finish throughout; cost $15,000.

Architect George Grussing: For H. Hoffmann, at Mandoda, Illinois, a two-story residence, to be of pressed brick all round, have slate roof, hardwood interior, electric light, furnace and the sauitary plumbing. For H. H. Brinton, on Sacramento avenue near Van Buren street; a three-story and basement flat building, to have a front of Bedford stone, slate mausard and gravel roof; cost $12,000.

Architects Patton & Fisher: For A. B. Lowther, corner of Ontario and Market streets; a four-story warehouse; 50 by 76 feet in size; to be of brick and stone with gravel roof, steam heat, elevator, etc. For Professor Shorey, a two-story study, to be erected on Woodlawn avenue, to be of pressed brick and stone. For N. S. Bouton, at Dunedin, Florida; a two-story frame clubhouse. For D. J. Kennedy, eight two-story frame houses, to have stone basements, all the sanitary conveniences and cost $25,000. For E. H. Pitkin, remodeling and additions to residence at Ridgeland. Also making plans for two-story frame parsonage for the Congregational church at Ridgeland. For J. H. Howard, at 4801 Kimbark avenue, a handsome two-story basement and attic residence. The first story will be of stone and above of red Spanish tile. Also making plans for a two-story residence, to be erected at Oak Park, for W. F. Furbeck. The first story will be of brownstone and the rest of frame.

Architect Henry Sierks: For F. Freidenberg, on Pleasant street, a three-story flat building of pressed brick and stone front. Also working on drawings for a two-story buildiug, 200 by 250 feet in size, to be erected at the World's Fair grounds for the state of Nebraska.

Architect A. G. Ferree: For M. Smith, at Evanston, a double two-story frame house, brick basement, plumbing, electric wiring, etc. For F. Turnandt, at Ravenswood, a two-story frame residence, stone basement, sanitary improvements, furnace, etc.; cost $5,000. Also making plans for two-story store and flat building, to be erected at Sixty-ninth and Wright streets; sanitary improvements, etc.

Architects Parke & Purrssell: For M. Hartere, on Halsted street near Sixteenth, a four-story store and flat building; to have a pressed-brick front, trimmed with Bedford stone; cost $12,000. For the same owner, on Wallace street, between Thirty-third and Thirty-fourth streets, a two-story flat building of pressed brick and stone.

Architect Julius Speyer: For W. J. English, corner of Halsted and Matteson streets, a three-story store and flat building, 48 by 62 feet in size; to be of pressed brick and stone front, and cost $20,000. For M. Considine, corner of Thirteenth street and Center avenue, a four-story apartment house, 73 by 99 feet; to cost $40,000; pressed brick and stone front, gravel roof, all the sanitary and modern improvements.

Architect E. H. Turnock: For Thomas Lyman, at Ravenswood, a block of fine two-story and basement residences. They will have pressed brick and stone fronts, gravel roofs, sanitary improvements, furnaces, and cost $20,000. For Mrs. Emma Perham, at Ravenswood, a three-story flat building, 40 by 90 feet in size; to cost $13,000. The front will be of light-colored pressed brick, with buff Bedford stone trimmings. For Fred Heinsler, on State near Fiftieth street, a three-story flat building; to have a stone front, gravel roof, sanitary and modern conveniences; cost $12,000. For Fred Hall, at La Grange, a two-story basement and attic residence; stone basement, sanitary improvements, furnace, etc. For C. B. Mears, at La Grauge, a two-story basement and attic frame residence, stone basement, furnace and all improvements.

Architect George Garnsey: For M. May, on Calumet avenue and Forty-second street, a three-story and cellar flat building; to have a stone front, all improvements, and cost $12,000. For M. McCabe, at Edison Park, a two-story and cellar residence; to be of frame construction with stone basement; cost $6,000. For Mr. Lott, at De Kalb, Illinois, a two-story residence of stone foundation, brick first story and frame above.

Architects Dixon & Brooks: For Mrs. George Driggs, at 5,431 Cornell avenue, a four-story apartment house, 25 by 78 feet in size; to cost $15,000. The front will be of Roman pressed brick with buff Bedford stone trimmings and copper bays. For Louis Keefer, on Prairie avenue, south of Thirty-ninth street, a block of five three-story residences; to have a frontage of 100 feet by 76 feet in depth. They will have handsome stone fronts, slate mansards and gravel roofs, hardwood finish, electric light and all the improvements. Also making plans for a two-story basement and attic parsonage for the South Park Avenue M. E. Church. Will be of granite front with slate roof, hardwood interior finish, etc.

Architects Hetherington & Warner: For J. Brophy, at Twenty-eighth street and Union avenue; a three-story and basement flat buildiug; of pressed brick and stone. For J. W. Sheridau, on Oakley avenue and Madison street; a four-story and basement apartment house; 33 by 125 feet in size; to cost $38,000. St. Louis pressed brick and stone, brick bays, copper cornices, electric wiriug; to be of irou construction and have the best of sanitary and moderu conveniences, heating, etc. Also making plans for a three-story addition to the Servite Father's building, on Albany avenue and Van Buren street.

Architects Ostling Bros.: For E. Cohen, corner of Chestnut and Wells; a four-story store and flat building; to have two fronts of pressed brick and stone, with galvanized iron bays, gravel roof, plumbing; to cost $12,000. For J. J. Donahue, corner of Diversey avenue and Halsted street; a four-story store and flat building, 59 by 134 feet in size; to cost $75,000. It will have two fronts of pressed brick and stone. For S. Peterson, at 237 Townsend street; a four-story flat building; 22 by 53; to cost $10,000. Pressed brick and stone front. For Charles Reiling, at 2215 North Ashland avenue; a two-story and attic store and flat building. For M. Lundquist, on Oak Grove avenue, near Clark street; a two-story flat building. For A. Schroeder, at 117 Sedgwick street; a five-story and basement flat building; 25 by 56 feet in size; to cost $13,000. To be of pressed brick and stone front, gravel roof, galvanized iron bays, etc.

Architect F. B. Townsend: For J. M. Hanchett, on Fiftieth Court and Evans avenue; a three-story apartment house, 53 by 74 feet in size; to cost $17,000. It will have a handsome stone front, hardwood interior and all improvements.

Architect A. W. Cole: For George W. Hoyt, at 5210 Hibbard avenue; a two-story basement and attic residence; 30 by 70 feet; to cost $10,000. To be of frame, with stone basement, have quarter-sawed oak finish, electric lights, etc. For James McKinney; a four-story store and flat buildiug of pressed brick and stone. Also memorial cottage for ministerial fund in connection with the Clinton College; two-story and attic; size 46 by 58 feet; to be finished in Southern pine aud have all the conveniences; cost $7,000. Rev. Walter Hillman of Clinton, Mississippi, president of Clinton College. Also makiug plans for a two-story frame residence; to be constructed of redwood and have sanitary plumbing and all the improvements. It will be built at Claremont, California, for Prof. E. C. Norton of Claremont College. Also for President Baldwin, of Claremont College; a two-story residence; to be finished in redwood in oil, with paneled

ceilings, etc. These houses will be supplied with water from the new tunnel which is being made in the neighboring mountains. From this source it is proposed to supply with water and electric lights the three towns of Pasadena, Ontario and Claremont.

Architects Flanders & Zimmermann: For Dr. G. Chamberlain, on Thirty-first street near Prairie avenue, a seven-story apartment hotel, 65 by 100 feet in size; to cost $100,000; to be of pressed brick and stone front, with copper bays, interior to be finished in hardwood, and have steam heat, electric light, etc. For William R. Griswold, on Ashland avenue near Lake street, a four-story and basement apartment house. 100 by 76 feet in size; to cost $60,000; pressed brick and stone front, hardwood interior finish, steam heat, electric light, etc. For G. Brown, on Rhodes avenue near Thirty-fifth street, two three-story flat buildings, of stone front with copper bay windows, hardwood finish, etc.

Architects Treat & Foltz: For O. Benson, on Belden avenue west of Clark street, a four-story and basement apartment house, 109 by 100 feet; to cost $90,000. For Joseph Stockton, on Taylor and De Koven streets, a two and three-story and basement stable, 216 feet long by 50 feet wide; to cost $25,000. For O. M. Power, on Fifty-seventh street and Jefferson avenue, a three-story residence; to cost $25,000; the front will be of buff pressed brick and terra cotta, hot-water heating, electric light, etc. For George H. Tripp, on Greenwood avenue near Fifty-first street, a three-story residence; to be of brick on the main floor, and shingles above; have hardwood interior finish, hot-water heating, electric light, the best of modern and sanitary conveniences; the approximate cost $13,000.

Architects Lamson & Newmann: For C. E. Brown, on the corner of Jackson boulevard and Wood street, four two-story and cellar residences, 90 feet frontage and 72 feet deep; to cost about $28,000; to be of mottled pressed brick and stone front, with copper bays and cornices. For M. Levermann, corner of Colorado avenue and Sacramento, a three-story store and flat building; to be of pressed brick and stone front, and cost $10,000.

Architect C. S. Corwin: For George Blossom and Warren McArthur, two two-story and attic residences, of pressed brick and frame; to be erected on Forty-ninth street and Kenwood avenue; they will have all the improvements, and cost $16,000.

Architect W. W. Boyington: For Hahnemann Medical College, Cottage Grove avenue and University place, a five-story and basement building, 64 by 77 feet in size; to be constructed of pressed brick, stone and terra cotta. Also at same place, a seven-story and basement building, 64 by 130 feet; the two buildings will be fitted up with electric light, steam heat, elevators, and all the sanitary conveniences, and cost $110,000. For S. M. Millard, on Forty-second street and Evans avenue, a four-story and basement apartment house, 22 by 120 feet; to cost $15,000; to be of pressed brick, stone and terra cotta front, with galvanized iron bays. For F. D. Stout, a three-story residence, size 36 by 72 feet; to be of frame with stone basement, hardwood interior, etc. For F. A. Peterson, corner of Lincoln and Seminary avenues and Mariana street, a four-story flat building, 50 by 50 feet; to cost $12,000.

Architect Francis J. Norton has completed drawings for a handsome three-story brownstone residence, 25 by 80 feet, to be erected at Forty-fifth street and Grand boulevard, for Miss Mamie Hayes. It will be finished with plate, stained and art glass, hardwood oil finish and all sanitary, electric and modern improvements; cost $25,000.

Architect L. G. Hallberg: For Dr. E. S. Talbot, at Clark and School streets; a block of five three-story stores and flats; 100 by 60 feet; to be of pressed brick and stone with galvanized iron bays, sanitary plumbing, electric wiring, etc.; cost about $25,000. For Theodore Theis, on Sidney court near Wrightwood avenue; a three-story flat building, to be of stone front with slate mansard and gravel roof and cost $12,000.

Architect Fred Ahlschlager: For St. Bethany Christian church, to be erected corner of Fifty-fifth street and Atlantic avenue; making plans. It will be 70 by 80 feet in size, with basement, auditorium and gallery. Pressed brick and stone with slate roof, stained-glass windows, heating apparatus, etc.; cost $25,000. Also making plans for J. L. Hocber, corner of Twenty-first and Lincoln streets, for a three-story basement and attic flat building 25 by 75 feet; to be of stone front, cost about $12,000. For M. D. Carl, at 73 Reese street; a three-story flat building, of pressed brick and stone front, galvanized iron bays, etc.

Architect J. N. Tilton: For J. L. Cochran, three two-story basement and attic residences, to be erected at Edgewater. For C. H. Crosby, at Riverside; a two-story residence of frame, with stone basement, plumbing, furnace, etc. For G. B. Lyman, at La Grange, two two-story frame houses. For W. R. Burleigh, at La Grange, a two-story basement and attic frame residence, to have stone basement, all the sanitary improvements, electric light, etc.

Architects Willet & Pashley: For the Berlin Machine Works at Beloit, Wisconsin; a three-story factory, 200 by 66 feet in size, to be of brick, mill construction, and cost $31,000. For David Bradley Manufacturing Company, at 55 to 59 Jefferson street; a six-story warehouse 60 by 150 feet in size, to be of pressed brick and stone front, the two first stories in iron, to be of mill construction and have elevators, electric light, steam heat, etc. For E. F. Burton, at Oak Park, five two-story and basement residences of buff pressed brick, stone and terra cotta fronts of very attractive design.

Architect Franklin P. Burnham: For Joseph Levesey, on Warren avenue between Kedzie and Homan avenues; a three-story residence; 25 by 63 feet in size, to have a rock-faced stone front, hardwood finish, hot-water heating, etc. Also making drawings for the cold-storage warehouse, to be erected at the World's Fair grounds. It will be 130 by 280 feet in size, five stories high, to be of staff construction similar to the other buildings. [Note.—Edbrooke & Burnham have dissolved partnership by mutual consent and Mr. Burnham will continue the business as usual in the Chamber of Commerce building. George W. Strong has been appointed agent of the old firm and will settle up all accounts, etc.]

Architect A. Druiding: Making plans for church, to be erected at Ravenswood, to be of frame. Also two-story parsonage for the same; cost about $15,000. Also for two-story school, to be of pressed brick and stone front, slate roof; size 62 by 84 feet; to cost $12,000. To be erected at Du Quoin, Illinois; Rev. Klocke. Also making plans for frame church; 56 by 100 feet in size; to be erected at Avondale, Illinois. Also two-story basement and attic school, 62 by 37 feet; to cost $10,000. To be erected at Provemont, Michigan. To be of frame with stone basement. have steam heat and sanitary improvements; Rev. Reussmann.

Cincinnati, O.—Reported by Lawrence Mendenhall: The month of May just closed was indeed a rainy one, the months of April and May seeming to have been reversed in their regular order. The weather was not *fully* appreciated by the contractors, for if they could not dam the rain literally, they did damn it verbally. The rainfall was phenomenal and interfered with building operations considerably. However, behind the clouds was the silver lining, for the contractors knew that the question of strikes would not prove another hindrance. There will not be many large contracts handled this season, I believe, but the contractors, I think, will be pretty well satisfied when the season ends.

Architect S. S. Godley reports as follows: For Maurice Freiberg, Cincinnati, a residence; materials: pressed brick, furnace, slate roof, plate and stained glass, grates, mantels, laundry, gas, plumbing, etc.; cost $15,000. For Walter Freiberg; a house similar in construction and materials used; cost $12,000. For George Prichard, Avondale, Ohio (Cincinnati), a residence; materials: stone, slate roof, furnace, hardwood, stained glass, grate, mantels, gas, plumbing, laundry, etc.; cost $18,000. For B. Mihalovitch, care architect; a residence; materials: pressed brick, slate roof, grate, mantels, furnace, laundry, gas, hardwood, etc.; cost $18,000. For Moritz Heilbrun, Sixth and Mound streets; a residence; materials: brick and stone, slate roof, hardwood, grates, mantels, gas, stained glass, laundry, furnace, etc.; cost $12,000.

Architects Boll & Taylor report for Rev. H. Kramer, pastor, Ludlow, Kentucky, a church; materials: brick, stone, furnace, stained glass, slate roof, frescoing, organ, furniture, etc.; cost $30,000.

Architect Henry E. Siter reports for J. D. Hearne, Third National Bank, Cincinnati, two residences; materials: pressed brick, furnace, slate roof, pine finish, mantels, grates, gas, plumbing, blinds, etc.; cost $12,000. Briggs Swift estate, Ninth and Sycamore streets, Cincinnati, a store and factory building, seven stories high; size 75 by 150 feet; materials: pressed brick, iron, steam, elevators, asphalt roof, gas, plumbing, etc.; cost $75,000. For Howard Douglass, a residence; materials: pressed brick, furnace, slate roof, stained glass, grates, mantels, hardwood, gas, plumbing, etc.; cost $7,500. For Twenty-first district, Cincinnati, a schoolhouse; materials: stone, slate roof, furnace, blinds, etc.; cost $75,000. Address Jacob E. Cormany, Chairman Building Committee.

Architects Nash & Plympton report for Mrs. A. D. Fisher, a residence; materials: frame and logs, tile roof, stained glass, furnaces, gas, plumbing, blinds, etc.; cost $12,000. For Walter Snowden Smith, of Syracuse, New York, a residence; materials: stone, tile roof, hardwood, furnace, mantels, grates; stained glass; cost $15,000. For Mrs. Dr. John Wiggin, 110 Broadway; a residence; materials: plaster and timber, slate roof, hardwood, furnace, blinds, gas, plumbing, etc.; cost $5,000.

Architects Jes Jardins & Hayward report for A. M. Wasson (in their care), a residence; materials: brick, furnace, slate roof, stained glass, hardwood, grates, mantels, etc.; cost $7,000. This enterprising firm of young architects have lately moved into more commodious and better lighted offices. May good luck attend them.

Cleveland, O.—Architects Coburn & Barnum: For Cleveland Medical College Company; a four-story brick college building, slate roof; size 37 by 64 feet; cost $20,000.

Architect J. Richardson: For Cleveland Athletic Club; a four-story brick club house; size 26 by 124 feet; cost $40,000.

Architect George H. Smith: For Dr. Henderson; a two-story frame dwelling, slate roof; size 31 by 41 feet; cost $5,000.

Architect B. F. Vanderveld: For Edward Hrabk; a two-story frame store and dwelling; size 42 by 35 feet; to cost $5,000.

Architect William Warmington: For the Peoples Gas Light Company; a two-story purifying house, brick; size 59 by 111 feet; cost $9,000.

Architect J. W. Headeck: For J. F. Troyon; a two-story brick dwelling; size 33 by 50 feet; cost $8,000.

Detroit, Mich.—Architects M. L. Smith & Son: For W. W. Hannan, a two-story double brick residence with slate roof, stone trimmings; cost $7,500.

Architect R. J. Black: For Thomas Fairbairn, a two-story brick residence, on Crawford street and Cleveland avenue; cost $6,000.

Architect W. S. Stratton: For E. A. Furguson, a two-and-a-half-story double dwelling house, pressed brick with brownstone trimmings; cost $12,000.

Architects Mason & Rice: For the Board of Police Commissioners, a two-story field stone and frame police station on Bell Isle Park; size 48 by 103 feet; cost $10,000.

Architect R. E. Raseman: For Theodore L. Backus, a three-story brick residence, on Hancock avenue and Hastings street; cost $6,000.

Architects Malcombson & Higginbotham: For Baptist Church Society, Pontiac, Michigan, a brick and stone church building; to cost $20,000. For John Lauer, a four-story brick manufacturing building, corner Congress and Larned streets; size 44 by 100 feet; cost $10,000. For Miss Common, a two-story flat building; to cost $8,000.

Architect Ed. C. Van Leyen: For John French, additions and alterations to residence, at corner of Clifford and Montcalm streets; cost $5,000. For John O'Leary, Robert's Landing, Michigan; a two-story frame residence; cost $7,000.

Architect Harry J. Rill: For Hugh T. Peoples, eight two-story brick store and flat buildings; size 195 by 60 feet; cost $16,000. For Michael J. Griffin; a two-and-a-half-story brick residence, on Seventeenth street and Kirby avenue; cost $11,000. For Samuel Moyer, a two-story store and flat building, brick with brownstone trimmings, on Third and Alexander avenues; cost $5,000.

Architect Gordon W. Lloyd: For David Whitney, Jr., rebuilding of building recently destroyed by fire on Larned near First street; cost $16,000.

Architect J. G. McLean, Windsor, Ontario: For the British-American Methodist Episcopal Church society, a brick and stone church building; to cost $6,000.

Duluth, Minn.—Architects McMillen & Radcliffe: For George King, a four-story store; size 25 by 115 feet; steam heat, brick and stone, gravel roof; cost $28,000. For P. M. Graff, a three-story flat building; size 80 by 125 feet; stone with gravel roof, steam heat; cost $50,000; contractor, P. L. Peterson. For F. S. Hodges, a three-story store building, brick and cut stone; size 100 by 115 feet; cost $80,000. For the Board of Education, a three-story school building, brick and stone, steam heat, metal roof, exhaust ventilation; size 100 by 197 feet; cost $90,000. Also a two-story addition to school building; size 56 by 110 feet; cost $25,000. Also improvements to schoolhouse; size 38 by 72 feet; cost $15,000. For the Duluth Street Railroad, a two-story power house, stone and brick; size 50 by 115 feet; cost $38,000; contractors, A. F. Fisher & Co.

Architect G. H. Tenbusch: For Bishop M. Golrick, a three-story orphanage, brick, steam heated; size 140 by 67 feet; cost $50,000. For city board, a four-room frame school building; size 67 by 75 feet; cost $5,000. For John Fraser, a two-story frame residence; cost $5,500, Also preparing plans for the Catholic Cathedral, to be of sandstone; size 75 by 185 feet; estimated cost $200,000.

Milwaukee, Wis.—Architects Crane & Barkhausen: For Charles Button, a seven-story office building; size 80 by 120 feet; brick, with stone trimmings; cost $100,000.

Architects Rau & Kirsch: For F. Zautcke, a two-story stone residence; size 100 by 200 feet; cost $20,000.

Pittsburgh, Pa.—Architect L. O. Danse: For A. C. Beeson, a two-story residence, size 36 by 50 feet; brick with stone trimmings; cost $8,000. For William McConway, a two-story frame residence, size 106 by 45 feet, to cost $15,000. For A. I. Scott, a two-story and attic residence, pressed brick with stone trimmings; size 45 by 65 feet; cost $18,000. Clark, Richmond & Co., contractors.

Architect S. T. McClarren: For W. R. Ford, a two-story brick residence, size 33 by 79 feet, on Neville street; cost $11,000.

Architect F. C. Sauer, for J. C. Schaeffer & Brother, a four-story manufacturing building, size 40 by 90 feet; brick, gravel roof; to cost $14,000. Contractors, Benz Bros.

Architects Longfellow, Adler & Harlow: For H. G. Dravo, a two-story residence, brick and stone trimmings; to cost about $10,000.

Architect E. E. Miller: For Mrs. W. C. Moreland, a two-story brick residence; to cost $6,000.

Rochester, N. Y.—Architect Orlando K. Foote is building an edifice for the Third Presbyterian Church Society, corner East avenue and Meigs street, Rochester, New York; the style is modern Romanesque; material, St. Lawrence marble; seating capacity, 1,500; finished in quartered white oak, cased beams and trusses, marble mosaic floors in vestibules, Smead system of warming and ventilation; cost about $80,000; H. H. Edgerton is the general contractor. Dwelling house for Mrs. Agnes Moore, to be built on Rutger street; cost $6,000; contracts not let. Dwelling house on University avenue, for J. P. Palmer; cost about $10,000; contracts not let. Brick block, two stores, two flats, and Masonic hall, in Charlotta, New York; cost $10,000; contractor, Robert Corbitt. Dwelling house on Court street, for J. W. Gillis; cost $3,000; A. W. Hopeman, contractor.

Architect W. Foster Kelly is preparing plans for St. Patrick's Church, Belfast, New York; to be of brick and stone, slate roof, finished in hardwood; cost about $15,000. Polish Church at Albion, New York; materials: brick and stone, slate roof, stained glass windows; dimensions, 42 by 90 feet; height of spire, 125 feet. Double frame house for Joseph Elliott; size 40 by 50 feet; finished in black ash.

St. Louis, Mo.—F. Kohlenmeyer & Son: For B. M. Verdin, a two-story brick dwelling; to cost $10,000. Also for the Maple Building Company, a two-story brick store and hall; to cost $22,000.

St. Paul, Minn.—Architect E. P. Bassford is drawing plans for a handsome five-story brick block, to be erected on the northeast corner of Sixth and Minnesota streets, by Thomas Berrisford; it will be a steel construction building, with plate glass front and façades of hard brick; the Sixth street frontage will be 75 feet, and the Minnesota street front 100 feet; the interior will be fitted up with all modern conveniences.

Architects Reed & Stem report plans for a $10,000 residence on Dayton's Bluff, for William Hamm; it will be of frame, two stories high, and will have interior hardwood finish, hot-water heating plant, and all modern appurtenances; work will be commenced at once. This firm has also plans for two school buildings at Little Falls, Minnesota; to be two stories in height and built of brick; cost $12,000. Also plans for a residence at Merriam Park, for L. H. Bishop; to be of frame; costing $5,000.



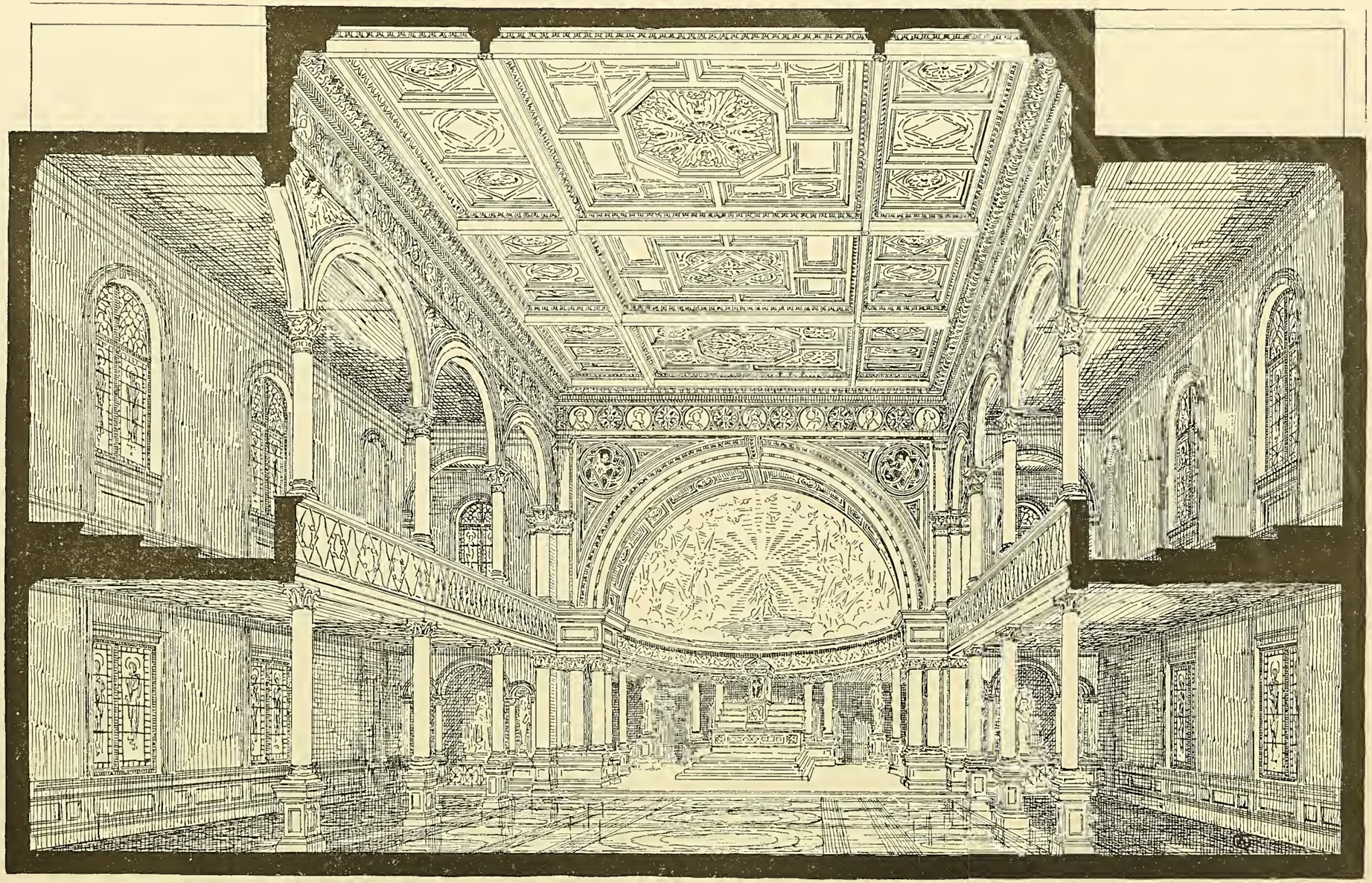
RESIDENCE OF DR. BELL, DENVER, COLORADO.

VARIAN & STERNER, ARCHITECTS.



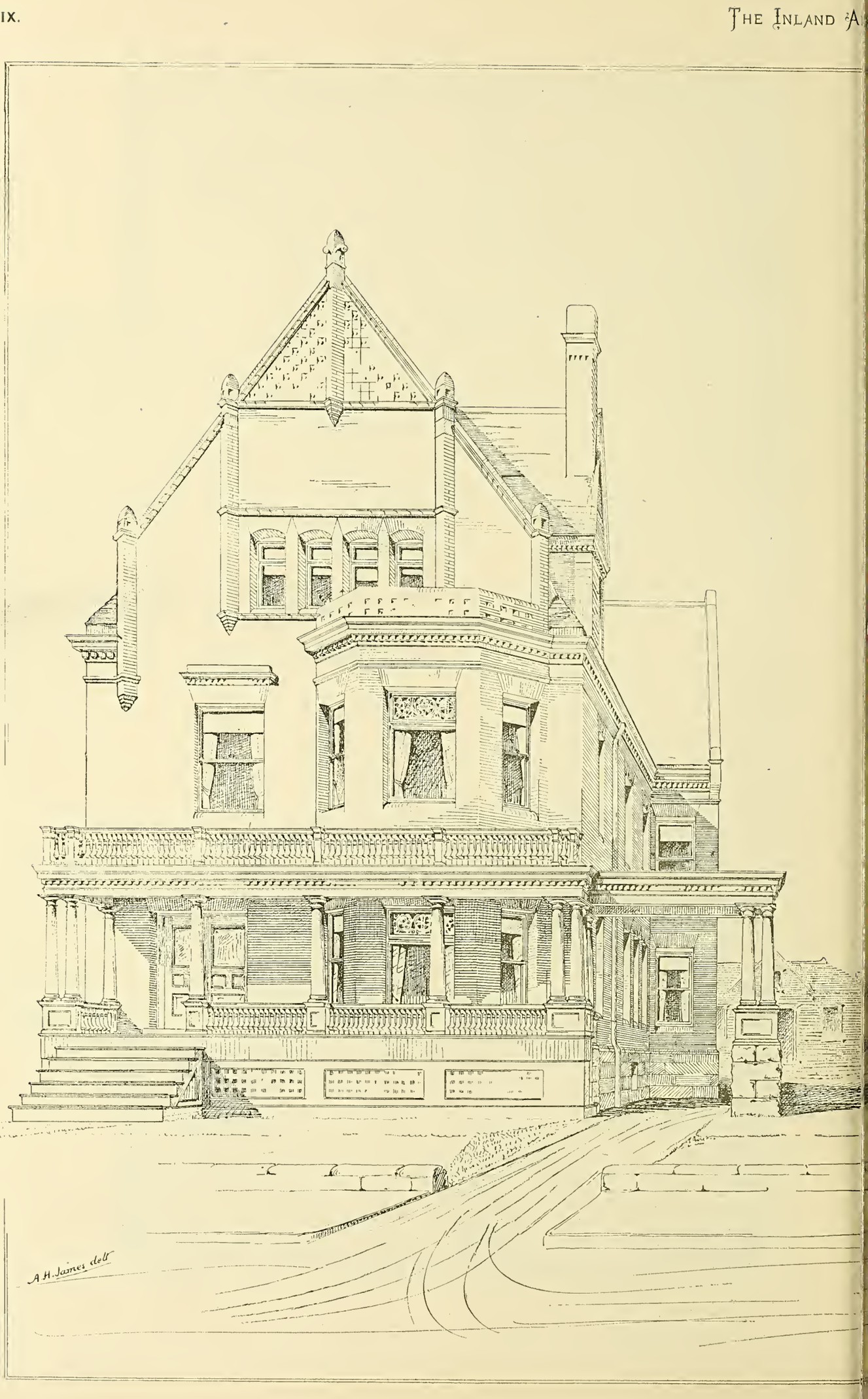
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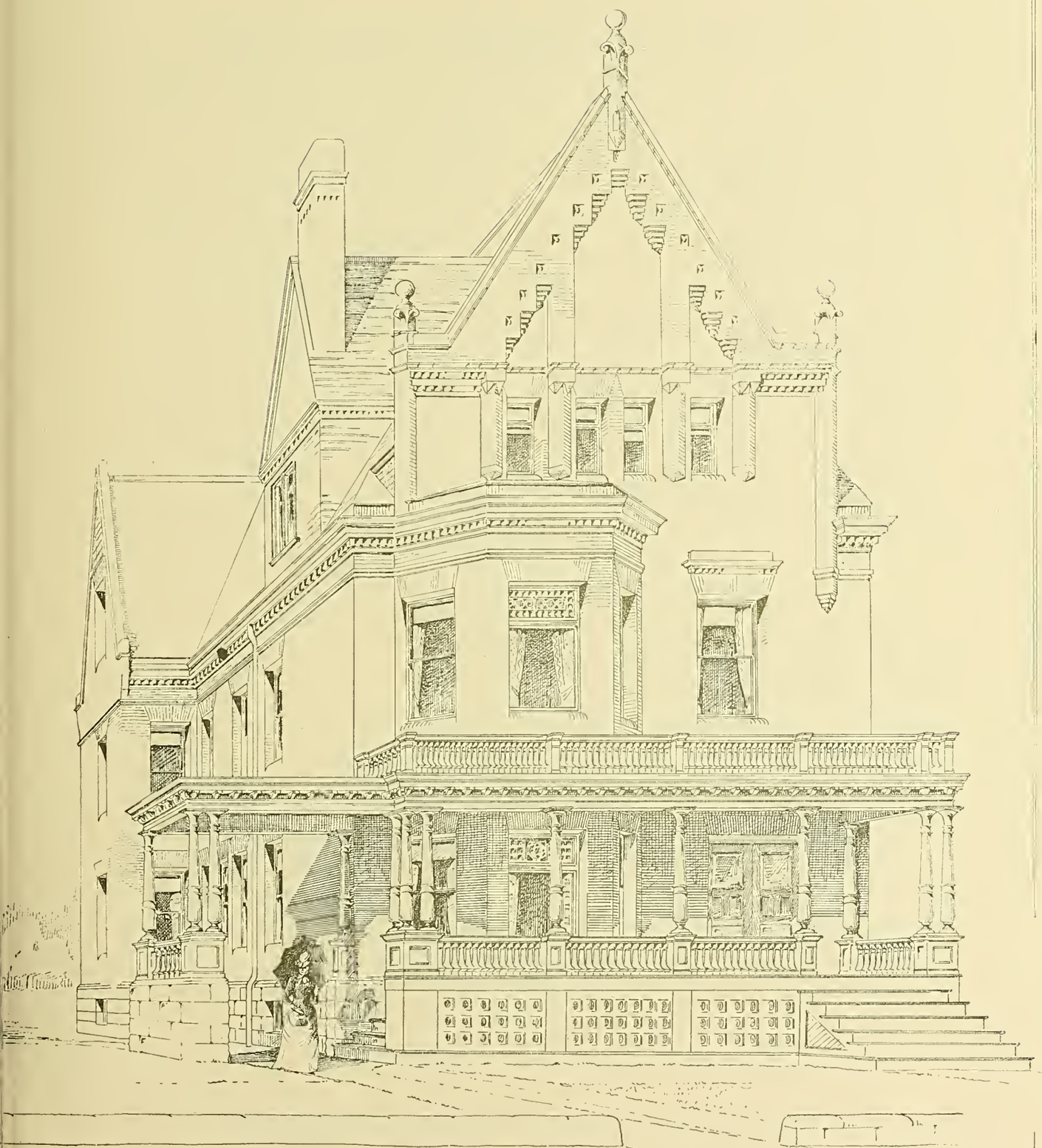
RESIDENCE AT CINCINNATI.



INTERIOR VIEW, SAINT TERESA CHURCH, SAN FRANCISCO, CALIFORNIA.

SHEA & SHEA, ARCHITECTS.


A.H. James, del.

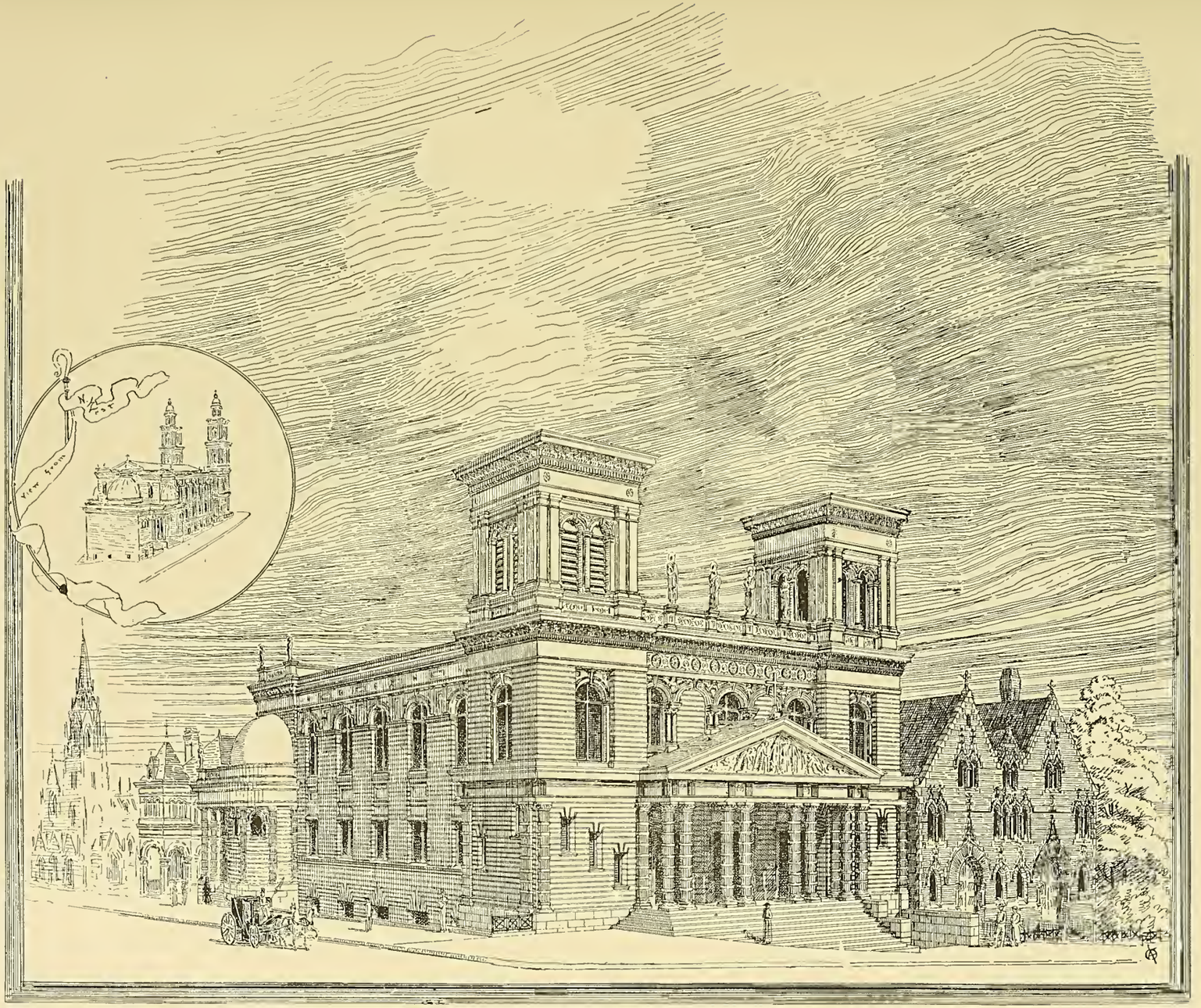


HOUSES FOR
THE WINNER INVEST. CO.
KANSAS CITY. MO.
JAMES & JAMES . ARCHITECTS .



A.H. James del.

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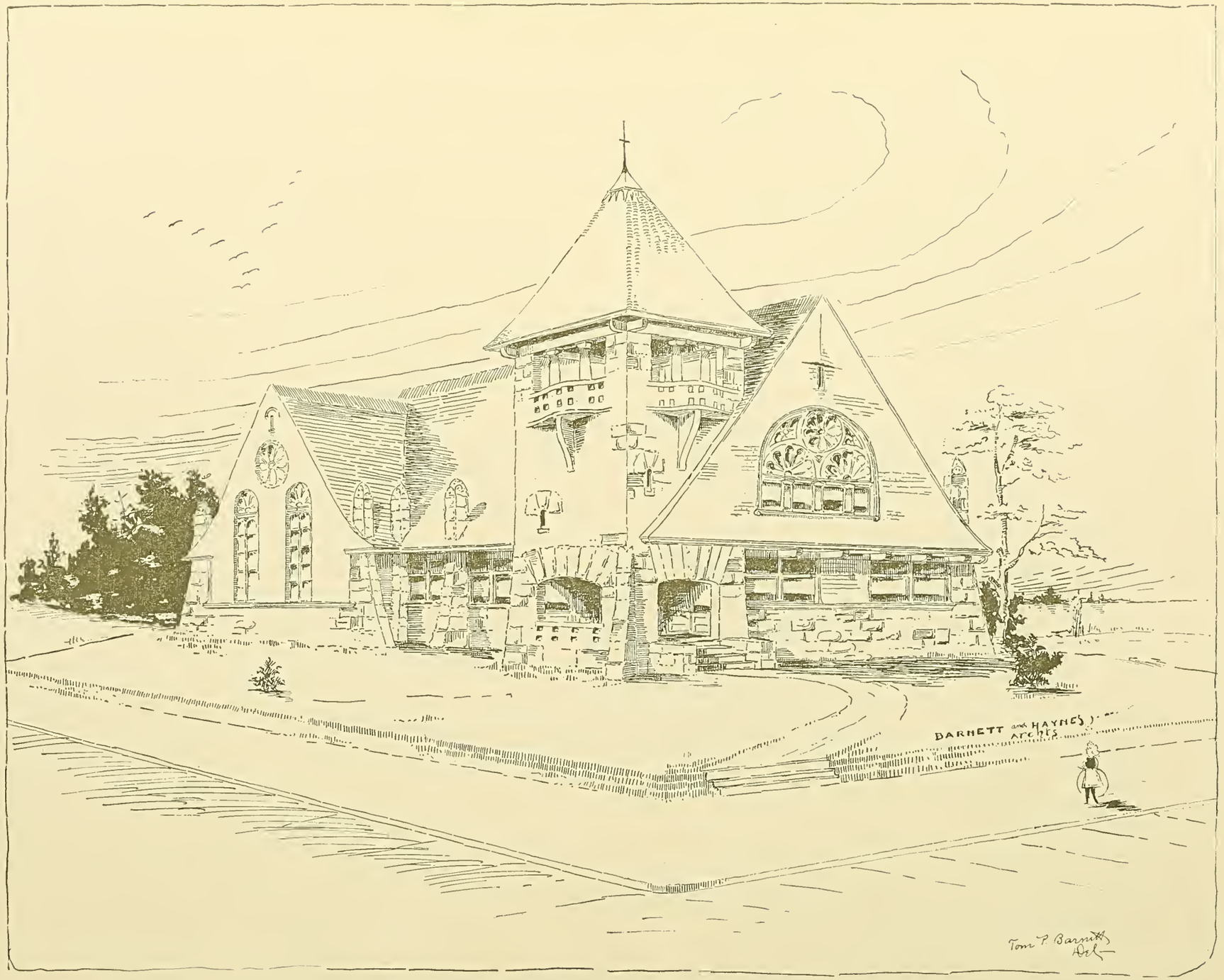
SAINT TERESA CHURCH, SAN FRANCISCO, CALIFORNIA.

SHEA & SHEA, ARCHITECTS.



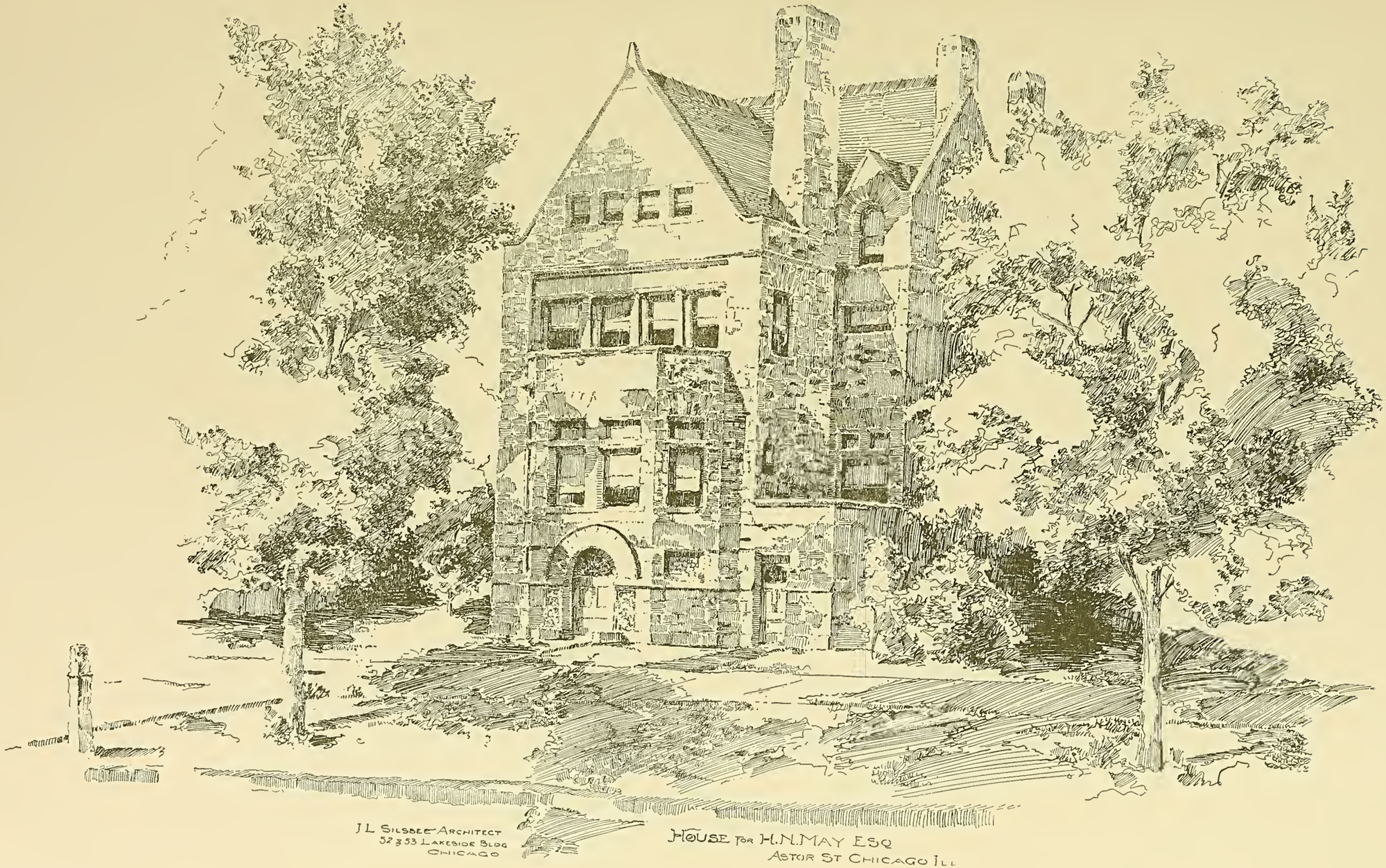
DWELLING FOR H. C. SPRAGUE, HYDE PARK, KANSAS CITY, MISSOURI.

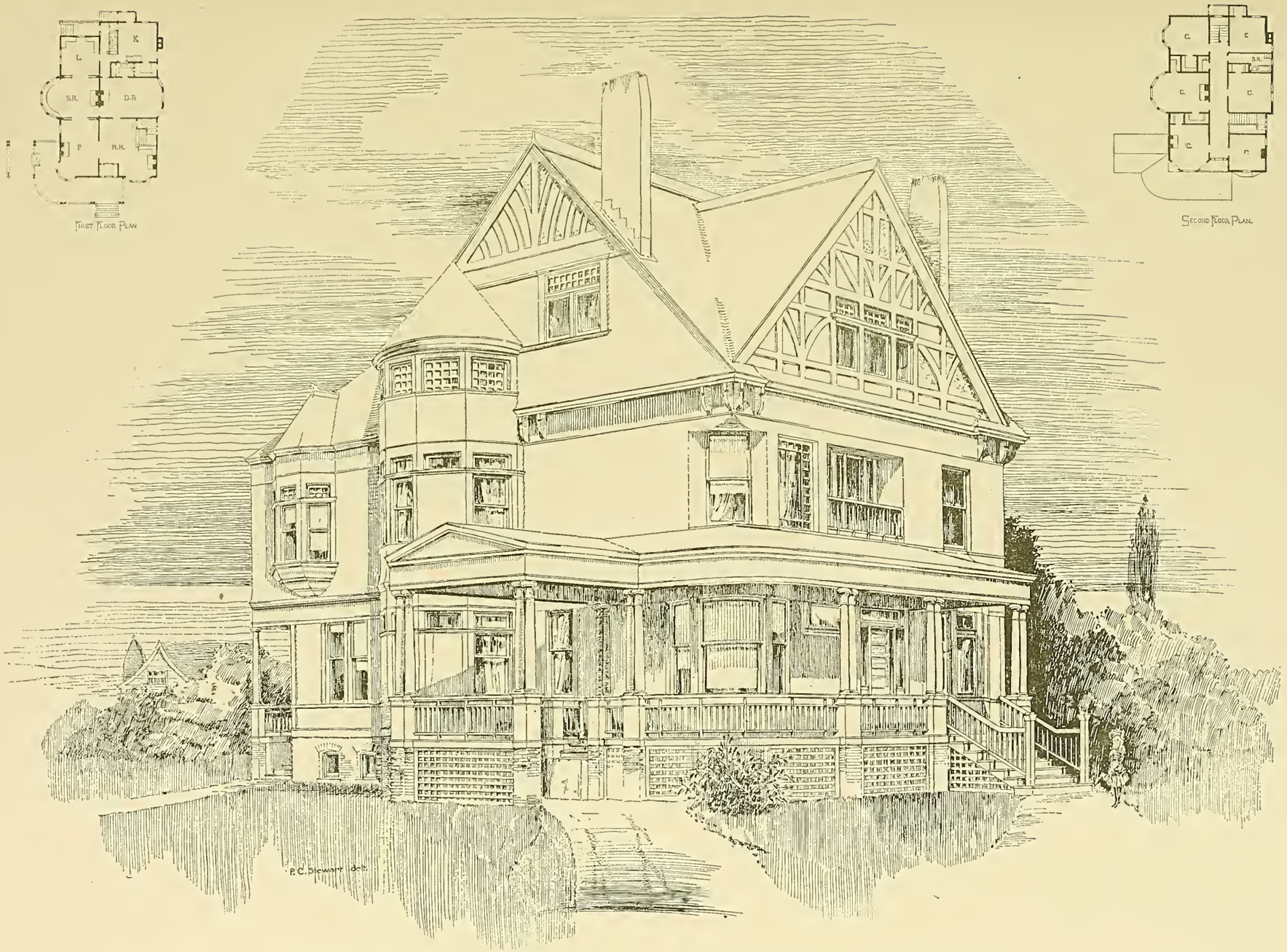
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J L Silsbee Architect
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Chicago
House for H.N.May Esq
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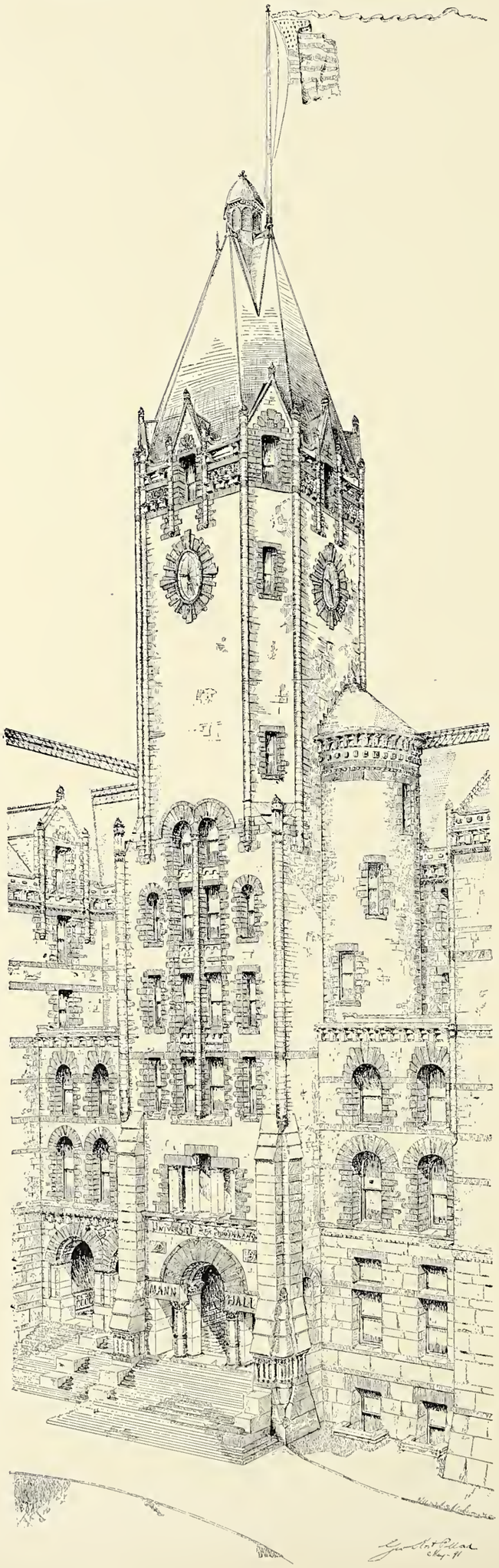
RESIDENCE FOR O. H. MORGAN, HIGHLAND PARK, ILLINOIS.

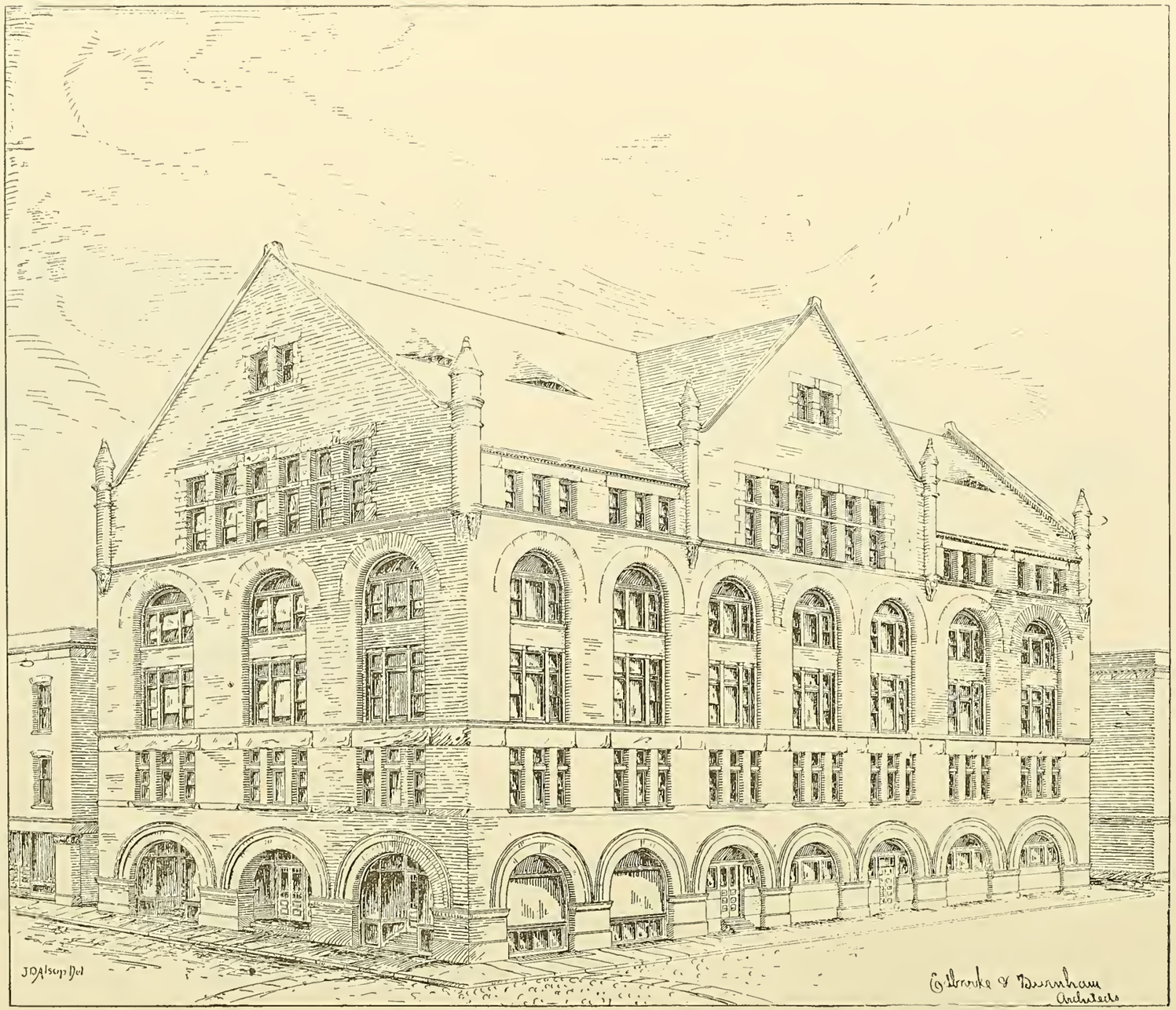
W. W. Boyington & Co., Architects, Chicago.

"Mann Hall".
University of the Southland,
Bluffton Dis.

Scale.

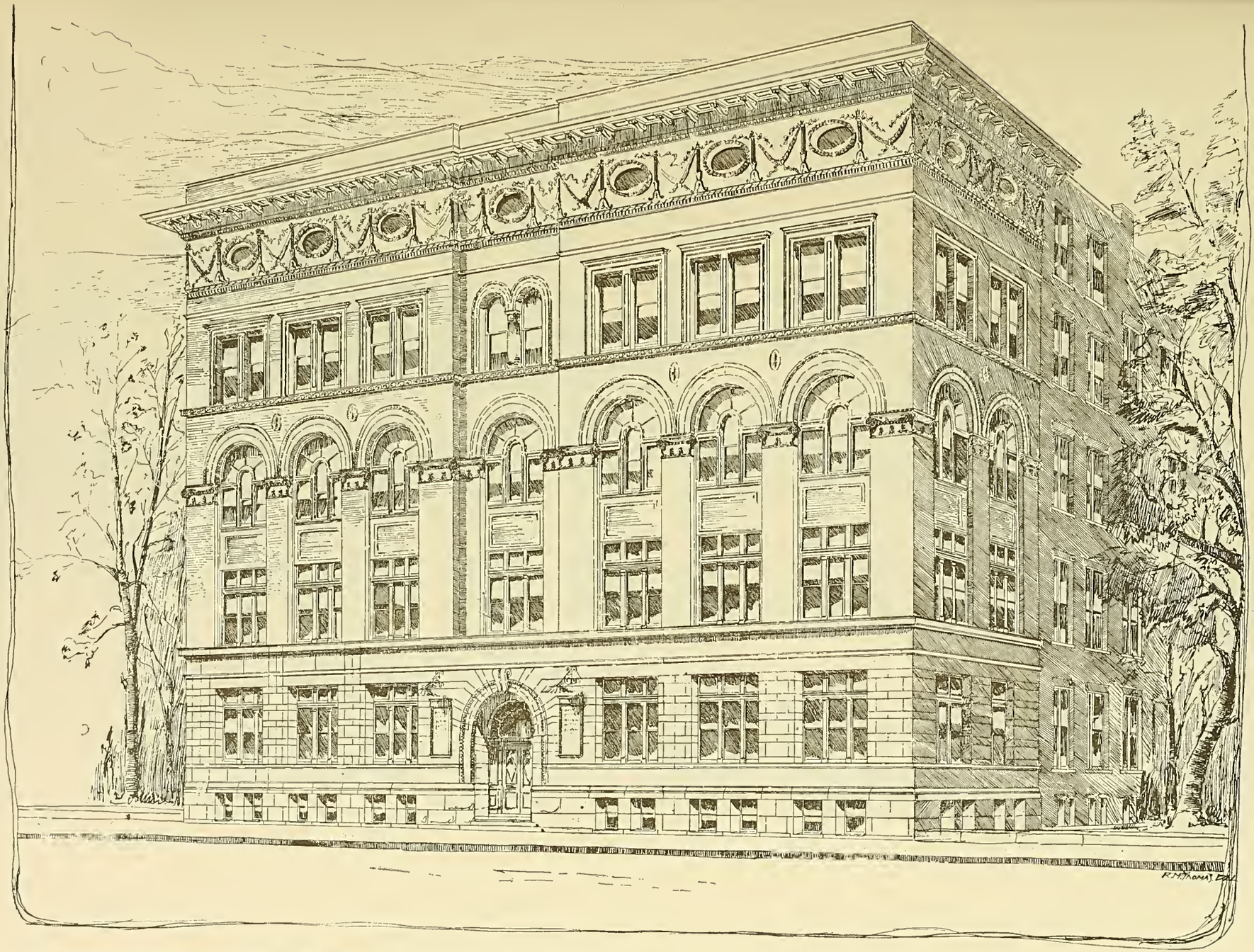
Arch't, Geo. Mort Pollard,
Bonnigton Dis.





AMATEUR ATHLETIC ASSOCIATION BUILDING AND LYCEUM THEATER, MEMPHIS, TENN.

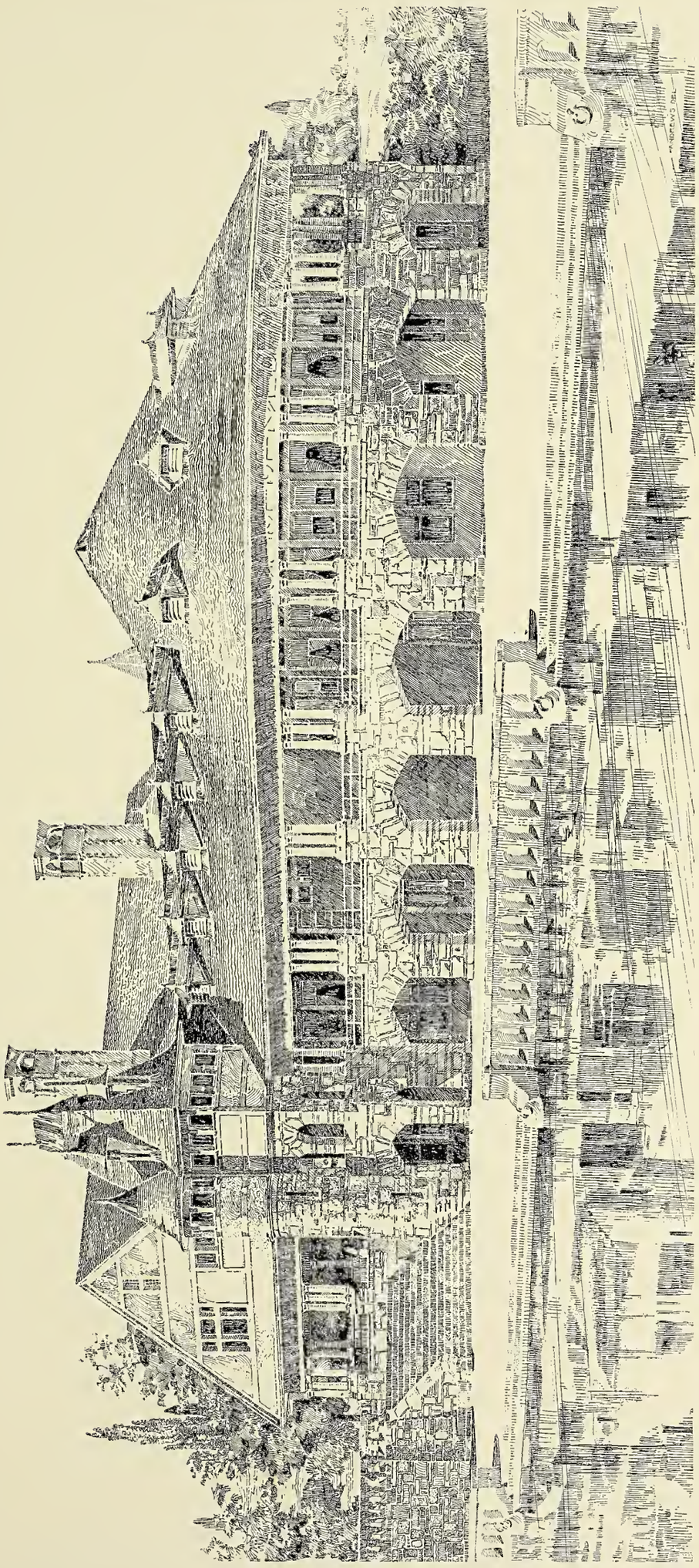
EDBROOKE & BURNHAM, ARCHITECTS, CHICAGO.

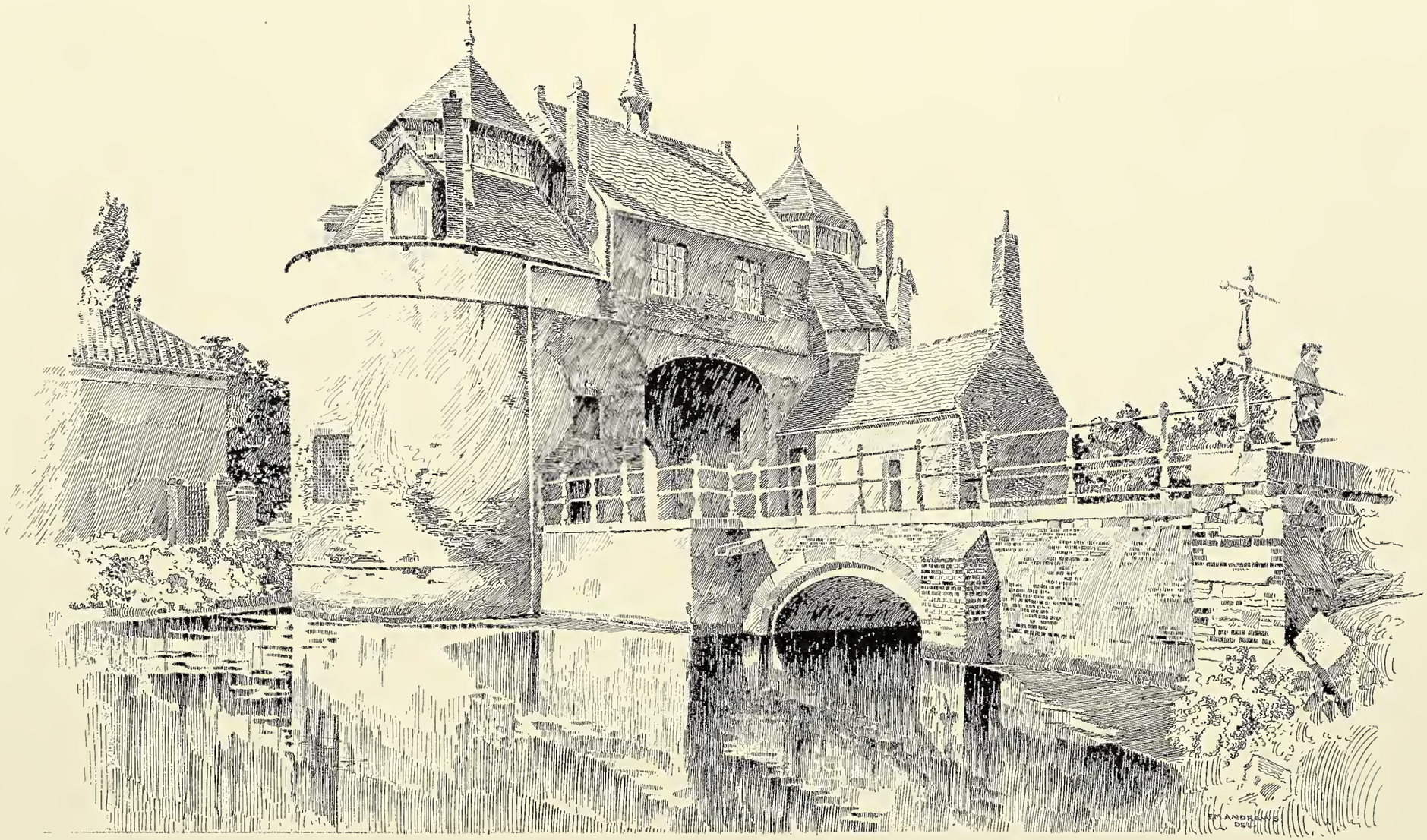


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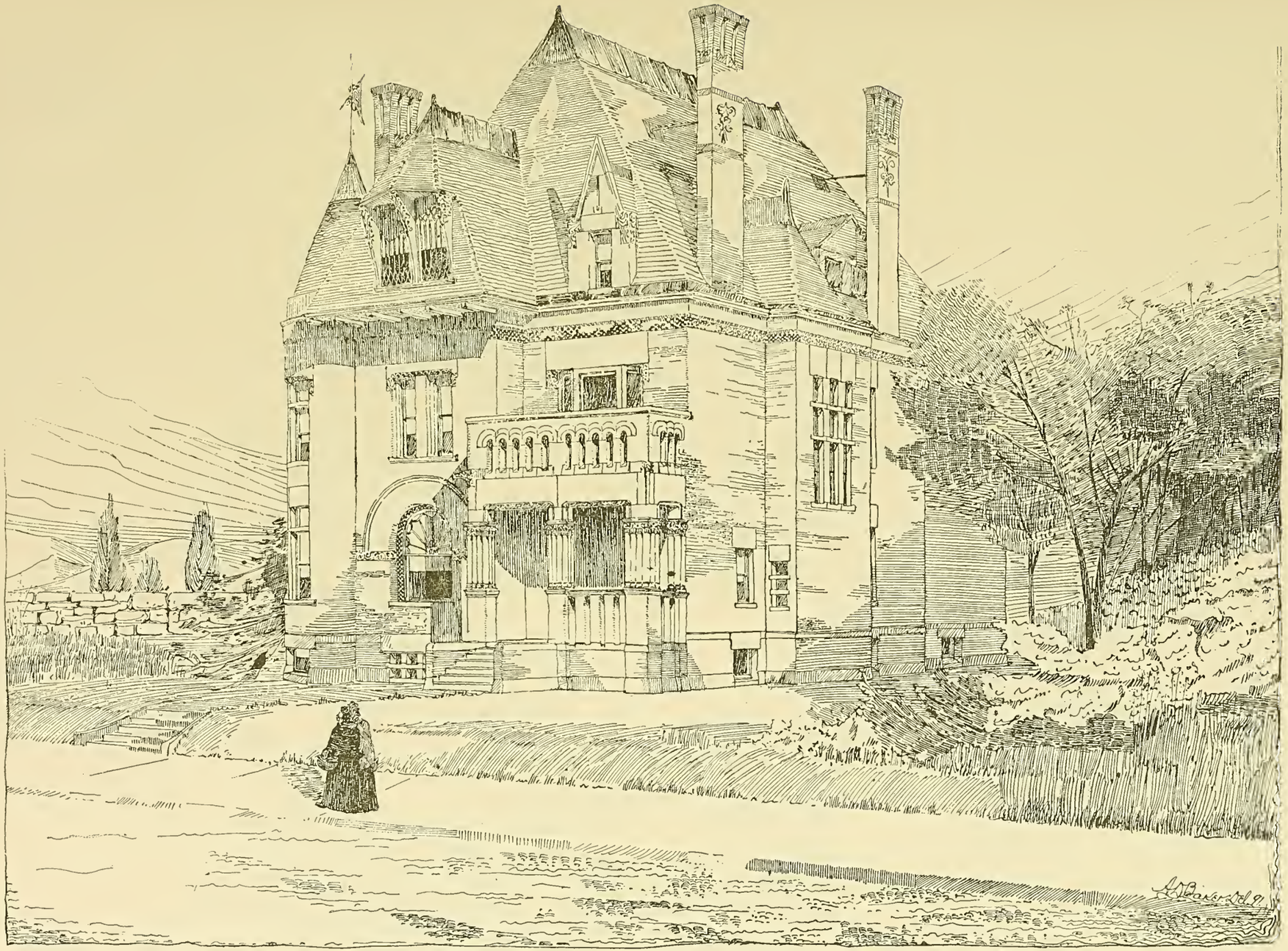
THE OSTEND GATE, BRUGES, BELGIUM.

F. M. ANDREWS, DEL., FROM PHOTO.



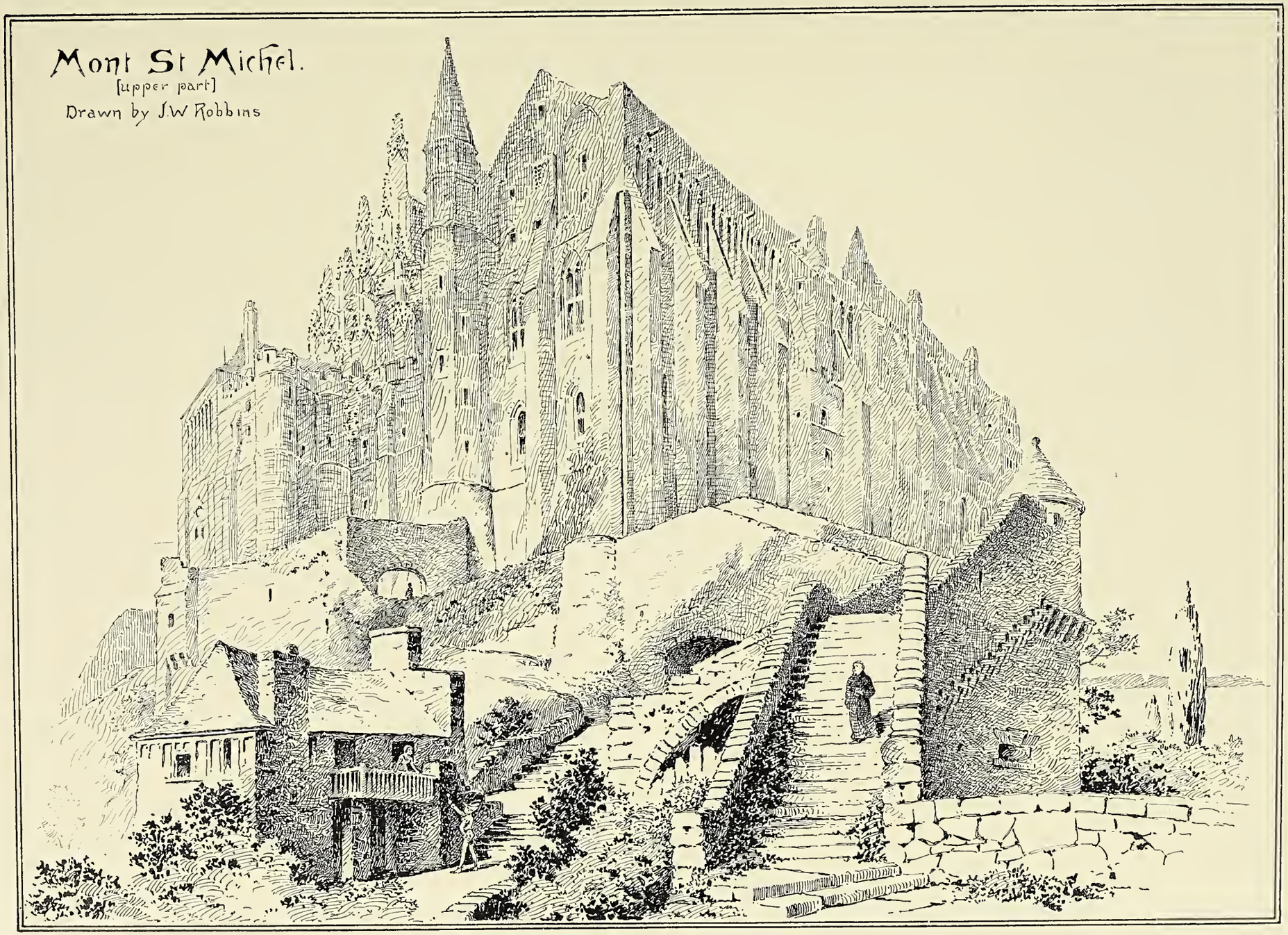
RESIDENCE FOR ROBERT E. FILLEY, LINDEL AVENUE, ST. LOUIS, MISSOURI.

E. C. JANSSEN, ARCHITECT.



RESIDENCE FOR MRS. ANNALKRAUSSE, ALBION PLACE, ST. LOUIS, MISSOURI.

E. C. Janssen, Architect.


Mont St Michel.
[upper part]
Drawn by J.W Robbins

THE INLAND ARCHITECT AND NEWS RECORD

Vol. XIX. JULY, 1892. No. 6



A Monthly Journal Devoted to

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CONSTRUCTION, DECORATION AND FURNISHING

IN THE WEST.

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World's Columbian Exposition Progress.

Rapid progress is being made in all departments of preparation for the World's Columbian Exposition. The principal acquisition in the line of exhibits of interest to architects is the arrangement that has been made by Mr. Halsey Ives, chief of the department of fine arts, with the French government, by which duplicates of the casts in the Trocadero have been secured. This is the first time the French government has made such a concession, and its value to the architects of this country is inestimable, especially as the casts will probably remain in Chicago after the closing of the Exposition. The time for the forwarding of plans of buildings by foreign governments has nearly expired and only three nations, Germany, England and Ceylon, have as yet sent drawings. The chief of construction has recommended that in case plans are not received by September that the allotted space be vacated. Of the forty-four states in the Union plans for but twenty-four buildings have been approved by the construction department up to July 1. These include the following:

Maine, C. S. Frost, Chicago, architect; North Dakota, J. L. Silsbee, Chicago, architect; Connecticut, Warren R. Briggs, Bridgeport, architect; Ohio, James W. McLaughlin, Cincinnati, architect; Indiana, Henry Ives Cobb, Chicago, architect; West Virginia, J. L. Silsbee, Chicago, architect; Rhode Island, Stone, Carpenter & Wilson, Providence, architects; California, A. Page Brown, San Francisco, architect; Maryland, Baldwin & Pennington, Baltimore, architects; Wyoming, Van Brunt & Howe, Kansas City, Missouri, architects; Michigan, M. L. Smith & Son, Detroit, architects; Nebraska, Henry Voss, Omaha, architect; Montana, Galbraith & Fuller, Missoula, architects; Colorado, H. T. E. Wendell, Denver, architect; Wisconsin, William Walters, Oshkosh, architect; Delaware, E. L. Rice, Jr., Wilmington, architect; South Dakota, E. W. Van Meter, Aberdeen, architect; Massachusetts, Peabody & Stearns, Boston, architects; Illinois, W. W. Boyington, Chicago, architect; Iowa, Joselyn & Taylor, Cedar Rapids, architects; New York, McKim, Mead & White, New York city, architects; Kansas, Seymour Davis, Topeka, architect; Texas, Gordon & Lamb, San Antonio, architects; New Jersey (W. L. Lenox, secretary, Trenton), architect unknown.

There has been an exhaustive test of steam and electric launches upon the lagoons; in which the steam launches showed the greater speed, burning hard coal and using keel condensers, emitting no smoke nor exhaust steam, the speed averaging seven miles an hour. The electric launches accomplished the continuous running of ten hours required at a rate of speed of from three to five miles an hour. The serious strike in an eastern steel mill has not affected the progress of construction, as most of the steel work has been received. In fact, the buildings begin to assume an air of completion that is gratifying, and no doubt now exists regarding their completion long before the specified time.

Suggestions to Amend the Uniform Contract.

In receiving from the Boston Society of Architects a copy of "Suggestions for a Form of Contract," it is presumed that, as this body is a Chapter of the American Institute of Architects, and that a serious attempt to originate a contract which to be useful should supersede the Uniform Contract issued four years ago by the Institute in conjunction with the National Association of Builders would be a direct condemnation of the Institute's work, it is only intended to bring the matter of amendment of the Uniform Contract before the members, so that an intelligent discussion may be had at the next convention. Otherwise it is hard to understand what these gentlemen in Boston expect or wish to accomplish. They certainly do not intend to censure the Institute in

its recommendation and support of the Uniform Contract, which is doing so much to secure uniformity and harmony in contracting throughout the country. Nor is it probable that they expect that the combined wisdom of the practitioners in Boston is superior to that of the profession and the builders throughout the United States, and that they know more regarding not so much as to what is proper but that which is practicable as the gentlemen who have formulated and from time to time amended the Uniform Contract. The suggestions sent out are in the main unobjectionable, but are generally contained, and we think in better form, in the blanks, of which more than two hundred thousand have been used by architects from Maine to California during the past four years, and we recommend that they be reviewed by the joint committee which will meet in Chicago in October to consider amendments to the Uniform Contract, and that they be considered by members of the Institute generally, so that if brought before the convention they may be intelligently discussed.

British and American Competition Methods.

In publishing upon another page the suggestions lately issued by the Royal Institute of British Architects for the government of architectural competitions it is with a wish to show the latest thought upon this subject among English architects rather than because some new and better form for conducting competitions has been found. The evils that have always surrounded architectural competitions will always exist and their senseless quality can never be lessened. It will be remembered that in November, 1885, a committee of the Western Association reported to the convention of that year fully upon this subject, and the finding of that committee has stood ever since as the essence of all argument upon the question of architectural competitions. D. H. Burnham, as chairman of the committee, made an exhaustive report which in thirty-five articles of objection showed the main evils which surround competitions, and concluded by saying: "But with all these evils, both inherent and unnecessary, competition is a fixed fact of our unwritten policy and we may as well recognize it frankly and at once." The result was the adoption of a "code" which has been the basis of many important competitions, and is still circulated when called for, by the secretary of the American Institute of Architects. Some members of the profession refuse to enter competitions as the only way in which they can protest against them, while others enter them because the building is notable and the committee in charge honorable, and almost invariably find that preference is given to an architect and seldom to a design, no matter how closely the identity of the competitors may be concealed, and in any event both money and time is lost in a lottery scheme in which the premiums are seldom forthcoming.

Ohio Chapter A. I. A. on State Organization.

The Ohio Chapter of the American Institute of Architects, a member of which body presented the resolution passed at the last convention of the Institute in relation to local Chapters, have taken further action and in a circular letter, which is printed in full on another page, have suggested amendments to the Chapter's Constitution and By-Laws in accordance with the plan outlined in the resolution. While each state Chapter will be governed by its local conditions, the fact that the integrity and usefulness of the Institute depends upon the healthy growth and activity of the state organizations needs little argument. In states where there are but two or three large cities, these having local Chapters, the state organization need not have all the machinery and detail that is necessary when the Chapters are many or only one in number; but for legislative purposes some form of state organization should always be maintained. The Ohio Chapter has found it advisable to waive initiation fees upon entrance to the state Chapter, provided the applicant is a member of a local Chapter, and in the same event the annual dues are likewise nominal. It may not be necessary to even preserve so complete an organization as that in Ohio for state purposes, as a board from among the officers of the local Chapters could be established to represent the state, and all members of local Chapters be enrolled members of the state organization, the expenses for state work being defrayed by special assessment as occasion required, but the Ohio architects find in their midsummer meeting a sociability and general exchange of views that pays them many times for the small expense involved in the support of a state Chapter. Containing also some of the most wise and far-seeing members in the Institute they continually keep in mind that the profession has no legal status and that no real advancement can be made and all other work is in a degree abortive until such status is obtained through state enactment, and only by persistent concerted effort through state organizations can this be attained. The seventh annual meeting of the Ohio State Chapter will be held at Columbus August 18. As this is the first meeting at Columbus since the organization of the Chapter there, it will probably be attended by a large majority of the members in the state, when the amendments proposed will be discussed.

Competition for Memorial to the late J. W. Root.

The announcement by the officers of the Chicago Architectural Sketch Club of a special prize competition limited to members only for designs for "a permanent memorial monument to the late John Wellborn Root, to be located at Jackson Park, to cost $15,000," gives to draftsmen a rare opportunity for not only displaying their designing ability, but, by the number of drawings presented in the competition, making a slight tribute to the memory of an architect who was the friend of all draftsmen, and particularly of the C. A. S. C. The time for closing the competition, October 17 next, is none too far away to allow any time to be wasted, as no draftsman will care to send in a design that is ungrammatical or undignified — a result of haste and lack of study. Known as Mr. Root was to every member, for he had that rare quality of making himself known to those with whom he came in contact, this monument can show each draftsman's conception of his character as well as a knowledge of monumental design. The prizes, of which there are three, contributed by Mr. D. H. Burnham and Mr. John Meiggs Ewen, are $75, $50 and $25 in gold, and though the club members will enter this competition wishing to honor their friend rather than in a mercenary spirit, the substantial reward will emphasize the judgment of the committee. The committee of adjudication will be C. B. Atwood, D. H. Burnham, Charles F. McKim, Lorado Taft and Charles L. Hutchinson. In the absence of club meetings during the summer months, each member should keep this competition in mind and when the time has arrived present a drawing that will, as far as in him lies, be worthy of the great object for which it is designed.

RECENT FIREPROOF BUILDING IN CHICAGO.

BY P. B. WIGHT, ARCHITECT.

PART VI.

FLOORS IN WHICH STEEL IS USED ONLY IN TENSION, AND FIRE-CLAY ARCHES CARRY ALL THE WEIGHTS OF FLOORS.

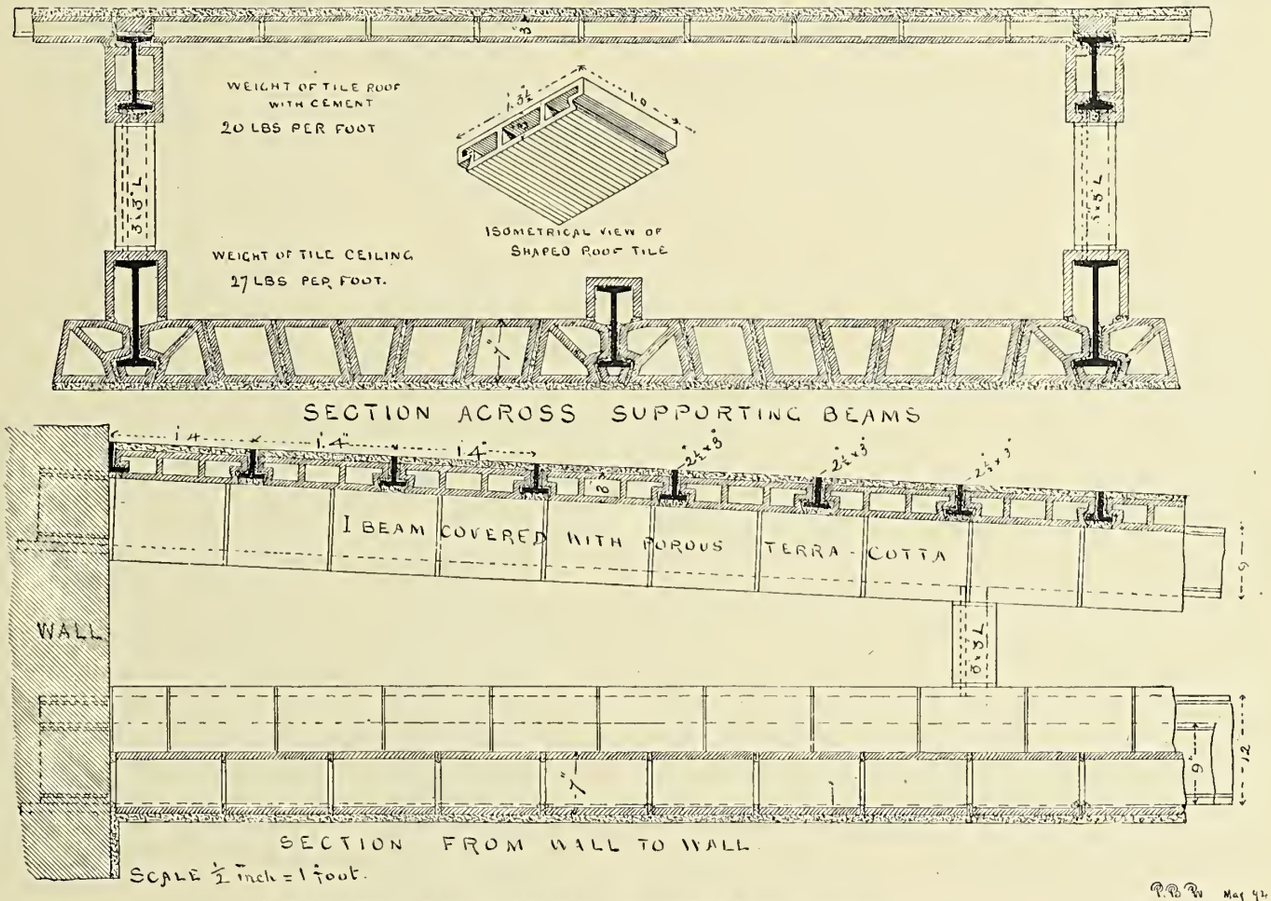
THIS system of construction, with hollow tiles, has been used only to a limited extent in Chicago. Several floors were built by the Wight Fire Proofing Company over boilers, in which light steel beams buried in the walls were used only for skewbacks, they giving a good bearing to the tie rods which were left exposed. Spans were from sixteen to eighteen feet. Some spans of fourteen feet were also built in the same manner over isolated rooms in the Minnesota Hospital for the Insane, at Richmond, Minnesota.

The most extensive use of this system is by the Guastavino Construction Company, of New York and Boston. They have only floored one building in the West in this manner, the Denver Telephone Exchange. It cannot, therefore, be considered a western system. This company uses only a laminated arch built of flat tiles laid in almost pure Portland cement. In place of girders it constructs segment arches *under* the tie rods, the latter being generally small forms of I beams. On these segment arches it builds ceiling arches which are of equal section at all parts; but rising from a curved line, they are, in fact, domical arches. The principle of construction is very simple, that of the egg shell, which has been demonstrated to be the strongest material and form in nature to resist compression. It is claimed for these arches that they are self-supporting, and would stand and bear weight after a reasonable time if the tie rods were removed. Their substantiality depends largely upon the quality of the tiles and cement used and the care taken in setting them. Consequently they are more expensive per superficial foot than hollow tile work, and their economy is only demonstrated where enough steel, that would otherwise be used, can be dispensed with, to bring the cost below that of floors constructed on the other system. This system, however, has many advantages in special cases where curved and domical ceilings form part of the design.

A similar system has been used at Columbus, Ohio, under the direction of Mr. Tyrrell, architect, in which bricks and hollow tiles have been used in a single course without lamination. In this the ties are all buried in the walls, and the domical as well as segmental forms are used to cover entire rooms, while long rooms are covered with a series of domes very much flattened. The office building in which Mr. Tyrrell is located is thus constructed, small hollow tiles being used generally. No tie rods are exposed in Mr. Tyrrell's system.

ROOF AND CEILING CONSTRUCTION.

In some cases the roof and ceiling construction are practically one. In others, when separated, the ceiling is self-supporting and becomes a light floor, not calculated to carry heavy loads. The practice of architects differs very much in this respect. The simplest and best method of constructing a roof for fireproof purposes is to make it exactly like a floor, only that it has the necessary pitch to drain off the water and is covered by any of the waterproof coverings in general use. As this does not give a flat ceiling it is confined generally to warehouses, of which several have been built in this way. Nothing is more dangerous to the stability of a fireproof building than an attic. It is liable to be stored with light materials and rubbish which are always very combustible because they are light, and inaccessible when they take fire because they are in an attic. Many fireproof buildings



have been seriously damaged from this cause. The destruction of a large part of the patent office was attributable to it, and resulted in the construction of a new fireproof roof in which anything like an attic was studiously avoided by the architects, Messrs. Cluss & Schultz, of Washington. It is today the most thoroughly fireproof roof on any building belonging to the government, and while it has stood for six years the example has never been followed by any of the government architects, who have nothing else to do except government work. Having done work, when a contractor, on twenty or more government buildings, I am competent to judge, and do not hesitate to say that if a fire should occur of any magnitude in the attic of any of them the roof would be speedily destroyed.

In Chicago buildings in some cases the ceiling and the roof are both made with hollow flat arches and of independent construction, but lighter than floors. In some the ceiling is of flat arch construction between I beams, and the roof of segment arches. In others the ceiling is the same as the last and supports a light

construction of roof on struts. This is shown in large illustration, and represents a thoroughly fireproof ceiling and roof constrction. In all the above the ceiling is practicable as a floor and is liable to be used for storage purposes. In many buildings the roof is of heavy construction with flat arches and I beams, and a light ceiling is suspended from it. This ceiling is either of 3-inch ⊥ irons 16 inches from centers, carrying 3-inch shaped hollow tiles sufficient to carry light loads, or of 1-inch angle or ⊥ irons 12 inches from centers, carrying tiles of half-inch thickness, which are only strong enough to carry their own weight.

The lightest roof and ceiling construction is one on which the roof is of "book" tiles set between ⊥ irons placed 18 inches from centers and supported on I beam purlins. From these purlins are suspended ⊥ irons from 4 to 6 feet from centers, which support light angles or ⊥'s placed 12 inches from centers to carry the half-inch ceiling tiles. As this construction will not admit of the use of the attic for storage purposes, it is the safest as well as the lightest construction to resist fire; for if the roof space is cut off from communication from below, the ceiling will protect the roof. A still safer system is to use heavier ⊥'s for the ceiling placed 16 inches from centers, and to set 3-inch hollow shaped tiles between them. These tiles can extend half an inch below the ⊥ irons and the space filled with plaster in dovetail form. It is safer because the 3-inch hollow tile is a better fire resister than the half-inch split tile. But it is liable to be used for storage purposes. Such tiles will carry any ordinary floor load, and the strength of the ceiling depends on the size of ⊥'s used. It is singular that the 3-inch hollow ceiling has never been used in Chicago. This ceiling has been generally used in the new buildings of Pittsburgh and Cincinnati, executed by Chicago contractors.

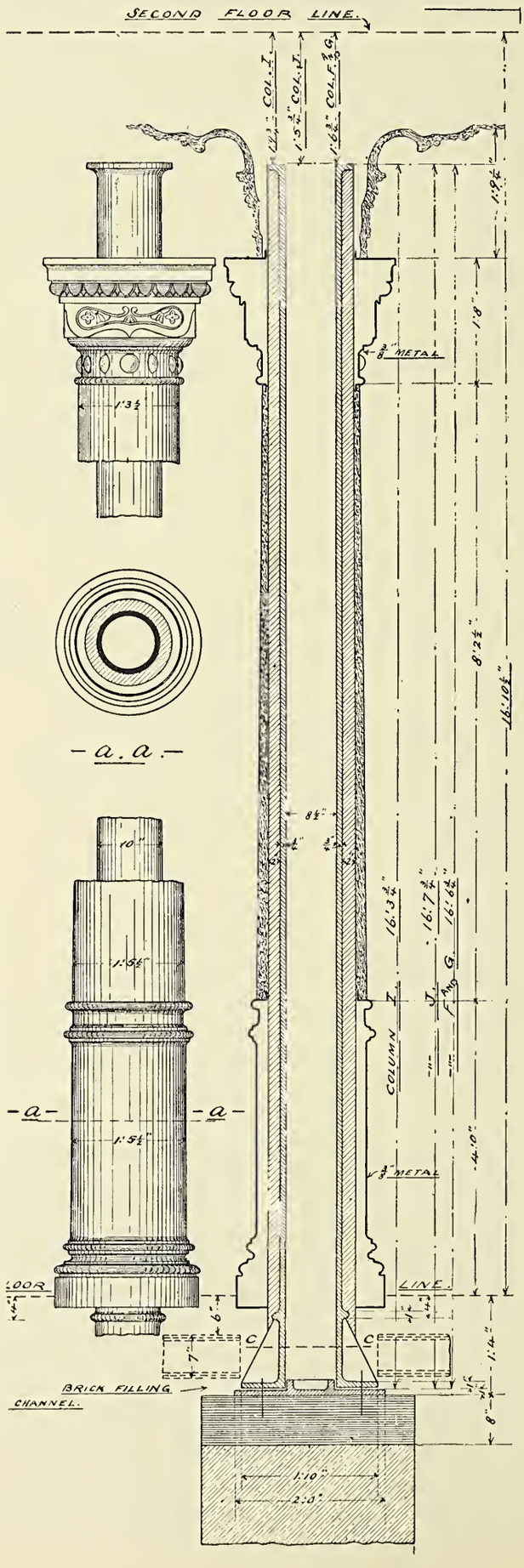
In general it may be observed that book-tile roofs are simply incombustible, and not fireproof on the under side, because the tiles rest on unprotected ⊥ irons, and wherever used such roofs should be protected by a fireproof ceiling and all communication with the attic cut off. It is common to omit the fireproofing of the girders under roofs where suspended ceilings are used. It is also common to omit the fireproofing of trussed constructions under similar circumstances. The remark made as to roofs of government buildings will hold good as to the roofs of a large majority of the fireproof buildings of Chicago. The roofs of all buildings in which iron and steel are used need more careful fire protection than any other parts of buildings, for the reason that they can seldom be reached by water; and yet they are most frequently neglected in this respect. It is fair to state in this connection that the roof trusses of the Milwaukee Chamber of Commerce, the Hammond Library at Chicago, and the Auditorium are all fireproofed with porous terra cotta. The fireproof qualities of most of the Chicago buildings end at the ceilings of the upper story. But from that point downward they are the best in the world.

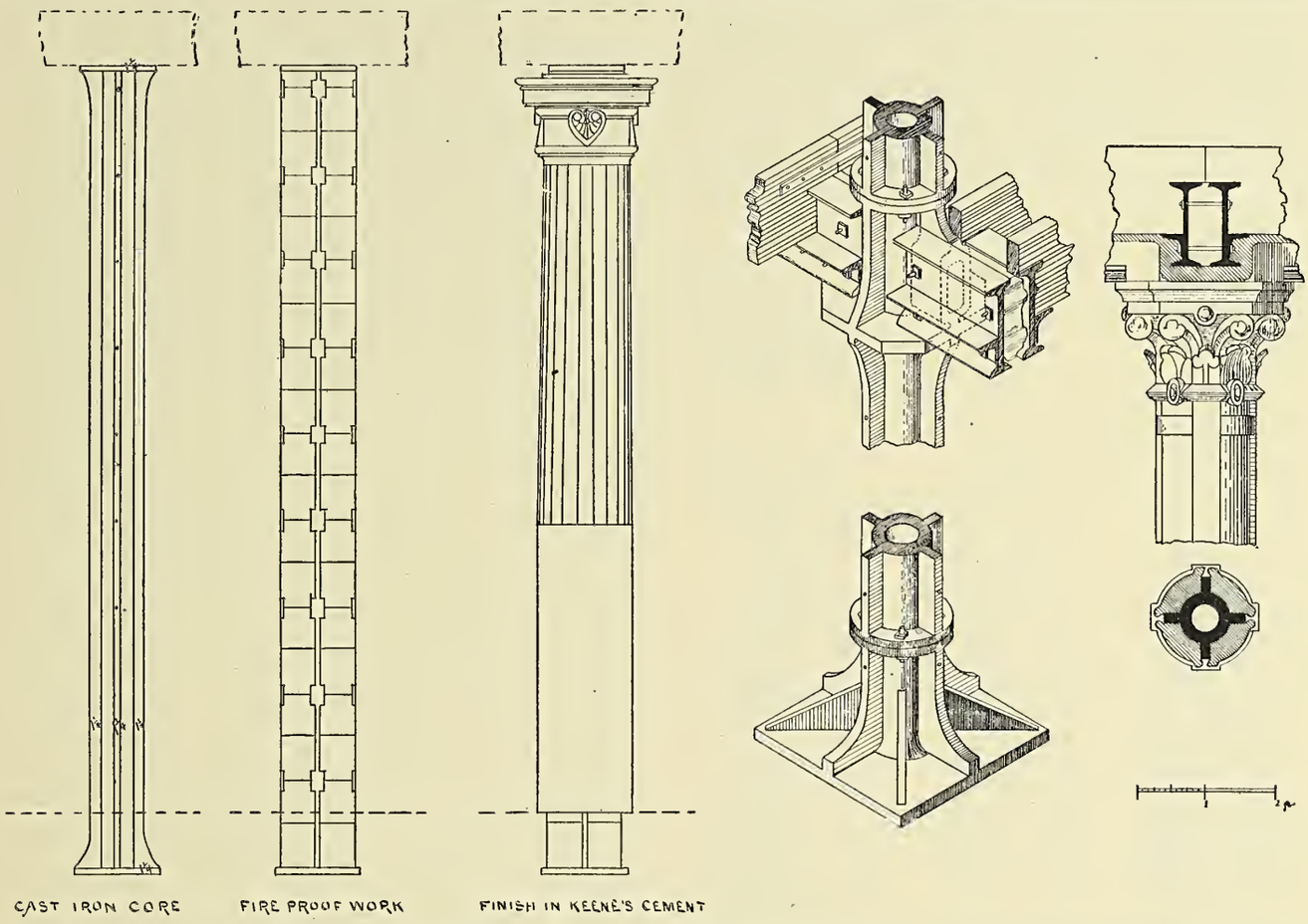
It is not the purpose of these papers to criticise or to recommend new or better methods, but to record only what has been accomplished. But I am so much impressed with the faults of roof and ceiling constructions now existing that, to make the matter brief, I will only suggest what constitute safe fire-resisting roofs. First in order is the roof of flat arch construction, similar to floors, without suspended ceilings. Second, in the case where a flat ceiling is demanded, comes the ceiling of I beams and flat arches, also similar to the floors, in connection with a roof as last described. Third, a ceiling and roof as shown in illustration. These provide a fireproof blind attic. Fourth comes a roof similar to floor construction with suspended ceiling of ⊥ irons and 3-inch shaped hollow tiles, or a lighter ceiling with half-inch grooved tiles. Fifth. If the roof must be of the lightest construction, it should be of ⊥ irons and shaped tiles, and not of "book" tiles, and all metal work should be protected with tile (including the bottoms of ⊥'s). Either form of ceiling may be suspended, but the lightest is best, because it forbids the use of the attic for storage purposes. This attic should be inaccessible and permanently ceiled up by building tile walls around all skylights and other openings through the roof. Hence, no pipes of any kind should be allowed in it, because someone will make an opening to get to them and leave it open.

The illustration shows, somewhat in detail, the third method, the best to produce a thoroughly fireproof attic, when the ceiling follows the floor construction of I beams and flat arches, and a light roof is desired. This kind of ceiling can readily be changed into a floor in case the building should be increased in height by the addition of other stories. When the roof is to be of floor construction and the ceiling is suspended, the construction is reversed and rods are used instead of fireproofed angle-iron studs. The beams in that case are set level on the top, and the arches stilted by using a different form of covering skewback.

ALL PIPES A SOURCE OF DANGER IN FIREPROOF BUILDINGS.

Pipes of all kinds are the enemies of fireproof construction, and in general they are arranged in buildings in the positions in





which they do the most harm. In many cases where it is attempted to make special provision for them, open shafts are built, which are practically flues for distributing fire into unseen places. Even where the greatest caution is taken in new buildings, repairs and alterations are subsequently made by careless and ignorant men who do not know what dangers they may cause. An innocent looking gas pipe passing down through a thoroughly fireproof ceiling, and carefully cemented in place, may cause a fire to communicate from room to room. If it becomes red hot below the ceiling, the upper end, which may come in contact with a floor strip, will soon become hot enough to cause combustion *under* a wooden floor. I know of only one building in which an extreme precaution against this was taken. In the American Bank Note Building, in New York, all the gas pipes were fastened to wooden strips, which had been secured to the ceilings. But they can be placed *under* any ceiling without disfiguring it. This only requires a little forethought and a little expense. The remarkably sudden and mysterious spread of fire in modern buildings is largely due to the multiplicity of pipes called for by modern inventions and improvements, just as the now ubiquitous elevator has been conducive to the rapid spread of many fires. Hence the multitude of new inventions which make modern buildings more comfortable, convenient and luxurious than any heretofore built carry with them a cause of danger which calls for the utmost vigilance on the part of the architect and his superintendent, and improved methods and precautions from the fireproofing expert. The open attic, the elevator and the pipe of all kinds are the most common and dangerous impediments to contend with.

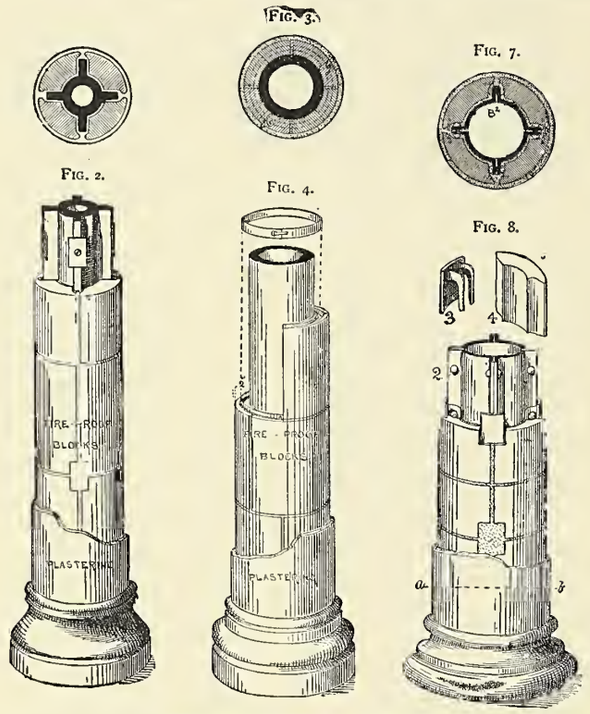
FIREPROOFED IRON COLUMNS.

As long as iron was considered to be a fireproof material, iron columns were exposed and decorated with iron ornamentation. But as they were discovered to be the most vulnerable features in so-called fireproof buildings, they were the first parts of iron construction to receive fire protection. Wherever the unreliability of iron construction to resist fire is recognized, iron columns now receive the first attention. The writer first began to agitate this matter in an address delivered in Boston in 1871 on the results of the great Chicago conflagration, and always insisted that the fireproofing of iron columns was not a matter to be determined upon for incombustible buildings only, but was a necessity in all buildings wherever used. This had been made evident by the number of buildings which had practically collapsed during the early stages of fires, by reason of the breaking of columns, which might have been saved had they been held up long enough to allow the fire extinguishing companies to do their work.

Before that time the danger of using unprotected cast-iron columns supporting *interior brick walls* had been recognized by the building laws applicable to the city of New York, and such columns were required to be double, or one within another. This was the first attempt ever made in America to protect constructive iron columns. The process was patented. The patent specified that the space between the two concentric columns should be filled with plaster. It happened, however, that in some buildings which were unoccupied during the winter months the freezing of the plaster burst the outside iron shells. The plaster filling was thereafter discarded, and the air space alone was depended upon to afford protection to the inside column which carried the weight. This system is still in use in New York city to a slight extent, but has never been used in Chicago except in one building. Recently these columns have been removed and plain ones have taken their place. I am not aware that any test was ever made of the efficiency of these columns as fire resisters, and I have never seen any report of their action under the effect of accidental fires in buildings.

It was in 1874 that the writer first experimented in this field and patented a method which was afterward considerably improved and came into extensive use for a time. The first experiments were in the protection of columns of cruciform section with gores of hard, slow-burning oak secured to the iron with protected screws and plates. But these were never actually used in any buildings. Porous terra cotta was at that time being successfully made at Chicago, and was substituted for wood, being used in sections about one foot long. This admitted of a plaster or cement finish and could be decorated to any extent, or covered with scagliola finish in imitation of marble. Methods were invented for attaching porous terra cotta blocks not only to flanged columns, but to square and round ones; in fact, to iron cores of any section. The methods used would alike permit the finishing of round columns as square and square ones as round, and a great variety was given to the exterior sections of fireproofed columns. There was also a great variety in the methods of covering the exterior.

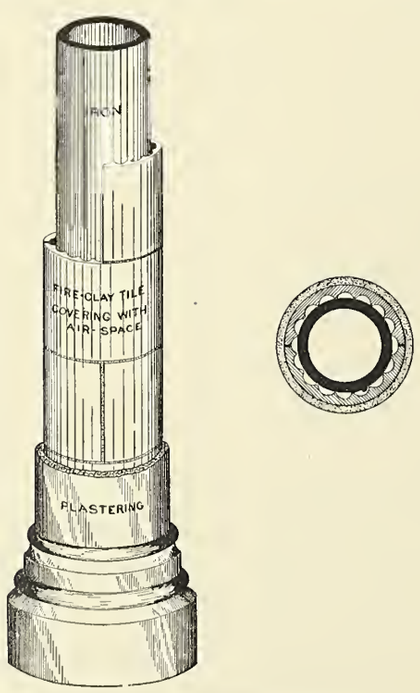
The invention of fireproofed columns led to a very extensive use of Keene's cement, which was suitable not only for plain surfaces but for molded work, and having a hardness almost equal to that of marble was able to resist the wear and tear to which buildings in use are subjected. Generally the shafts, dados and molded bases were finished with Keene's cement, and the capitals with plaster. In many cases the dados and bases were shells of cast-iron, and in some cases the capitals also. In government



RELIABLE FIREPROOF COLUMNS.

buildings, after fireproofing for columns was adopted, the capitals and bases were always of cast iron, and I only know of one instance in which the capitals are of plaster.

The first iron columns ever fireproofed with gores of porous terra cotta were those in the Chicago Club house. The shafts were



AN UNRELIABLE FIREPROOF COLUMN.

finished with plaster, and the capitals were made of ornamental terra cotta. To Treat & Foltz, architects, is due the credit of having introduced them. Cast-iron flanged columns or Phenix flanged columns, were also fireproofed in the same manner in the United States Patent Office, 1884; the Hamilton County Court House, Cincinnati, 1885; Chamber of Commerce, Milwaukee, 1880; Montauk Block, Chicago, 1881; First National Bank, Chicago, 1881; Grannis Block, Chicago, 1881; Wilshire Building, Cleveland, 1882; Chicago Board of Trade, 1884; Newcomb, Endicott & Co's store, Detroit, 1880; Martin Ryerson's two buildings on Wabash avenue, Chicago, 1881–2; the Milwaukee Exposition Art Department, 1881, and Hammond Library, Chicago, 1882.

A system of covering round iron columns with porous terra cotta slabs about 1½ inches thick secured with continuous hoop-iron dowels in the joints was used mainly in government buildings under the direction of Mr. Hill, supervising architect, and his successors. This was employed in eighteen government buildings in various parts of the West between 1880 and 1886. After 1886 architects generally began to specify iron columns to be "encased in terra cotta," "covered with jackets of fire clay or porous terra cotta," "fireproofed with tiles, with approved fastenings," also using many other kindred phrases, even when they had taken the precaution to provide flanged iron cores. Fireproofing columns became from then to the present time a question, "Who could do them the cheapest?" The cheapest proved to be a thin cylinder of hard burned fire clay, split in two and set around the column *without any fastening to the iron*, but simply hooked together or depending upon the breaking of joints to hold them together until plastered. The natural result was that the old system of using blocks of porous terra cotta *screwed to the iron* was driven out by competition. Very little of this kind of work has been done since then, and where porous terra cotta is used it is in thin slabs, built like a wall around the columns.

It is greatly to be regretted that cheap methods should thus creep into this branch of the building arts. But they may be found in column treatment in many of our most pretentious buildings, just as they may in flimsy vault construction. The columns are the most vital parts of interior construction, and vault building is the most responsible work of the fireproofer. But as long as competition for contracts prevails, and specifications are drawn without sufficient regard to essential parts of buildings, this state of affairs must continue.

This is no reflection upon the use of hard fire clay tiles as such, but upon the way in which they are used. The three essentials of all fireproof construction are: first, that the material must be indestructible by fire; second, that it must be secured in place so that it cannot be dislodged or broken by any of the usual contingencies during a fire; third, that it must be non-conducting so as to keep the heat away from structural parts. In this last respect hard fire clay tiles are only effective so long as they are in hollow form. Porous terra cotta on the contrary is a non-conducting material, and may be used in solid blocks, but hard tile for column covering should be hollow. In many of the most recently constructed buildings of Chicago, in which Z columns are used, these are covered with hollow tiles, but it often occurs that in the same buildings isolated round columns are covered only with shells of hard tile.

The difference between thorough fireproofing with porous terra cotta, well secured, and cylinder tile not secured, is shown by the above illustrations.

FIFTY DAYS IN FRANCE.

THE summer bicycle tour organized by Architect John Calvin Stevens, of Portland, Maine, will start from New York July 27. The party is limited to twenty and eighteen of the full complement have been enrolled. They are as follows:

Walter F. Price, 1719 North Eighteenth street, Philadelphia, Pa.; S. Gifford Slocum, 126 West Twenty-third street, New York city; Fred H. Gouge, Rowlands Building, Utica, N. Y.; Chester H. Kirk, 480 Regent Square, Philadelphia, Pa.; Junius H. Morse, 8 Exchange Place, Room 14, Boston, Mass.; William E. Evans, Jamaica Plain, Mass.; F. Walter Fountain, 8 Unity Building, Woonsocket, R. I.; Arthur Woltersdorf, 360 Ashland Boulevard, Chicago; H. P. Fowler, 280 Broadway, New York city; Elmer Grey, care of Ferry & Clas, Milwaukee, Wis.; Cyrus J. Williams, 911 Kinikinick avenue, Milwaukee, Wis.; Albert Kelsey, Penn Mutual Building, Philadelphia, Pa.; Louis C. Hickman, Penn Mutual Building, Philadelphia, Pa.; W. Waters, Jr., 125 East Buffalo street, Ithaea, N. Y.; Ernest M. Wood, Fifth and Vermont streets, Quincy, Ill.; George P. Fernald, 93 Mason Building, Boston, Mass.; Will A. Graves, 4 Spruce Place, Boston, Mass.; C. E. Hawley, Hotel Huntington, Boston, Mass.; John Calvin Stevens, Oxford Building, Portland, Me.

There will be eight Hawkeye cameras taken by the party and besides the valuable collection of sketches and photographs each will secure there will be $300 worth at least of solid fun. These tours should become popular with draftsmen in search of things that are "different." An informal reception will be given the party before sailing by the Sketch Club of New York.

NOTES FROM OUR FRENCH EXCHANGES.*

THE ACOUSTIC PROPERTIES OF THE TROCADERO.

AN extremely interesting and often discussed subject, according to *La Semaine des Constructeurs*, is that of the acoustics of theaters and assembly halls, and yet how very far we yet are from satisfactorily meeting the requirements of the public, which demands, first, to see well; second, to hear well.

Among the numerous difficulties of the problem, possibly one of the greatest, is that of the resonance of the walls, and the unequal manner in which these walls or ceilings reflect the sound, relatively to the different places occupied by the spectators. Add to this the infinite variety of requirements forced upon the designer; the differences of sonorousness which are shown, according as the hall be vacant or filled, furnished or unfurnished, provided with large openings for ventilation or lighting, etc., and the difficulties become very apparent.

On account of all these obstacles, it is not necessary to say, as do certain practitioners, that the problem is impossible, but rather it would certainly seem preferable to study with care those halls already constructed.

Note the results reached, and seek to discover if these results were obtained merely by chance, or if by precaution taken in advance. Also see how many of the requirements were fulfilled, and those not successfully treated; in a word, make a searching inquiry into the question. At this time, however, we would only call attention to one particular case, and that one which we have been able to personally investigate; we mean the grand auditorium of the Trocadero, considered for some time past as defective in acoustic properties. If there is some truth in this assertion, there is also much that is false, for I know of no criticism which has been anything but vague and general, and to be a serious criticism it certainly should point out the particular points of defect.

A few weeks ago, we were present at a musical matinee in this hall of which the plan is as shown in Fig. 1. Occupying a seat at the point marked A on the very center line of the auditorium we felt sure of seeing well and supposed that of course we could hear equally well. Alas! if all the pieces played upon the organ were clearly heard it was not so with the singing and the recitations: an extremely annoying echo, doubled and sometimes even tripled the sounds, rendering the whole effect confused and unintelligible. Moreover, this effect was the more intense, the more sharp was the tone of the voice. After the performance we explained our grievances to M. Bourdais, who kindly gave the following explanation, making a sketch which we reproduce from memory: "Your discomfort is not surprising to me since you were in the 'bean' and so saying he traced upon the plan a contour which was in fact similar to this interesting vegetable (shown in the drawing by a

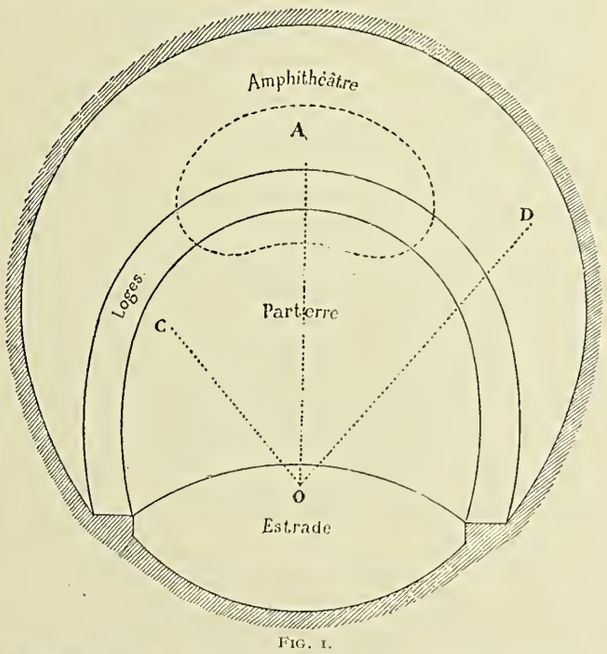


FIG. 1.

dotted line), and as you see your seat A was completely enveloped. Now, this echo is perceptible, it appears in all seats situated within this singular line, and nowhere else."

According to the sketch, this locality of useless seats is in the axis of the hall, and, so to speak, astride the boxes, touching the gallery above and the parquet below. It is not the distance from the stage which prevents hearing clearly the sounds, since they are perfectly distinct beyond the perimeter in question and as is well known, the words of an ordinary conversation under common conditions should be distinguished fully 250 feet, while the largest dimension of the hall is less than this.

Figure 2 gives an explanation of the phenomenon:

A sound sent forth at O is naturally projected in all directions. Among these sound waves there will be for the spectator at A a direct wave, O A, but also there are waves which strike the ceiling and sides of the hall at all possible angles. Now, there exists in the ceiling or dome of the Trocadero a zone or portion that reflects the sound. As is well known, the angle of reflection is equal to

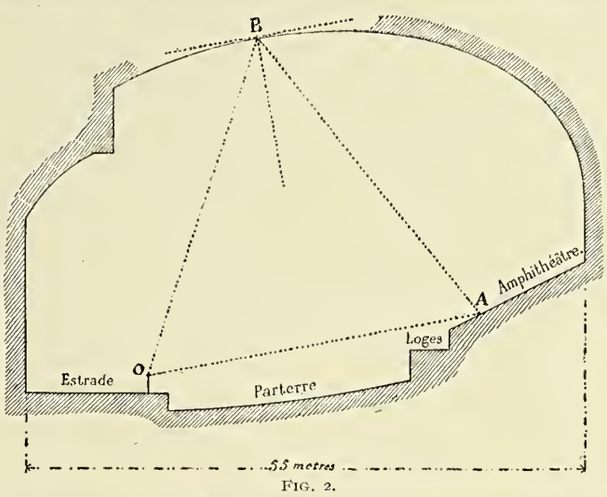


FIG. 2.

the angle of incidence, and in virtue of this law the reflected sound wave falls upon one of the points, as A, so that the person occupying that seat has received two sound waves, one the direct O A, the other the indirect and much longer O B A, hence the echo. Thus to a reflecting zone in the ceiling there corresponds a surface of seats figured on the plan by the "bean," and whose contour had been exactly determined point by point in the course of a series of experiments.

To remedy this serious defect, M. Bourdais proposed to destroy or at least decrease the resonance of what might be called the dangerous zone of the ceiling. For a surface reflecting the sound waves he desired to substitute a material which would absorb them. After numerous experiments, he chose a soft floss silk of a certain quality to cover this space, but in order to make it harmonize with the remainder of the ceiling it was necessary to paint it. But what was the result? This paint hardened the silk and left the surface rough, it is true, but solid and resonant, not in the least deadening the force of the sound waves.

Thus this defect exists, and without doubt will cost a very considerable sum to remedy, even if it may not be necessary to entirely modify the form and construction of the ceiling. Whatever may be necessary, it seems as if the results noted in this great hall of the Trocadero would be of value to architects who may have similar problems presented to them in their designing. Would it be impossible, then, to determine in advance the size and extent of these dangerous zones? We think not.

Such, then, is the explanation of the principal defect in the hall of the Trocadero. There are others, among which we would note the one resulting from the openings for light. These great windows in the outer walls form by the glass in them extremely resonant surfaces. Everything possible has been done to remedy this. Large panes of glass have been replaced by a rough glass, leaded in small pieces, considered thus to better absorb the sound. Even they have tried suspending an almost invisible curtain in front of them, but all the same, the windows still are resonant.

However successful these measures of precaution may be, it appears well to call attention to them, and it should also be borne in mind that among all halls devoted to music the Trocadero hall is probably the largest in the world, and is certainly one of those where the known laws of acoustics have been most carefully observed. However, it was not constructed for the use that it is now put to, and the organ only ought to be heard there, and the effect of this instrument, as we have said above, is truly remarkable.

THE ARCHITECTURE OF TOMORROW.

A project has just been broached and only slightly noticed by the daily press, which seems to be an interesting sign of the architectural evolution now in progress, according to *La Semaine des Constructeurs*. This scheme is known as "The Peoples' House" of Paris.

Most persons have heard of the building erected at Antwerp under this same name, by the workingmen's party of Belgium, and know that it was built from the profits realized from the eating places gradually started by their newspaper, the *Vorwit*. A body of French socialists, struck by the results obtained, have been inspired with the idea of building upon the heights of Montmartre, at Paris, a new Peoples' House. This is in our eyes something more than a simple everyday fact, in its possible bearing upon architecture par excellence, an art expressive of social conditions, and it would appear not improbable that our art will soon be called upon to satisfy these new aspirations as at the same time respond to the want scarcely yet expressed. It looks as if this movement would indicate that by the side of the public official architecture, by the side of the monument that the governmental solicitude places at the disposal of the nation to celebrate its social strength, there is being born a new architecture, the free and spontaneous expression of a doctrine which after having been promulgated by book and by speech is now to be expressed in stone. No one

*Translated and arranged for THE INLAND ARCHITECT by W. A. Otis.

would pretend that the promoters of the "House of the People" had in any way been preoccupied with any esthetic ideas, but it is certain that architecture will here, the same as it had done in all times, affirm by its assistance the legitimacy and vitality of the new doctrines and the transition from dreams and theoretical speculations to actual practice and execution. This house of the people is intended to be at one and the same time a center of meeting and instruction, an eating place where meals will be served cheaply, and also a building for popular meetings and celebrations. There will be a library and the socialist newspapers of the whole world will be on file. There will be lectures, and here socialists passing through Paris will meet their political friends.

Moreover, to attract the younger persons, there will be a gymnasium, and also a music hall and society. The house will sell food at reduced prices, and will also furnish meals, and for ten cents one may obtain breakfast or luncheon. Coöperative kitchens are to be established, and as the propaganda increases, coöperative societies for furnishing food will be started. The promoters of the scheme hope that in the near future a similar house will be opened in each of the populous quarters. This establishment on the heights of Montmartre will thus become the parent house, and in the same manner the large provincial cities are expected to follow the example set at Paris. Is this not a vast enough project to tempt the most ambitious architect, and is not the scheme new enough to permit of the most original treatment?

It is scarcely conceivable but that other forms than those of our cold, official architecture, so essentially aristocratic, will be employed, and this may give a new direction to our architecture, now so monotonous and lacking in individuality.

EXPLORATIONS IN MASHONALAND.

An English explorer, Mr. Bent, has been exploring some of the ruins in Mashonaland, South Africa, and has brought to light among others a vast edifice, which is a perfect specimen of an ancient phallic temple, in the style of the round temple at Malta. While this sanctuary does not appear to Mr. Bent to be necessarily of Phœnician origin itself, yet its style shows very great similarity to these monuments. Near to the temple, says *La Construction Moderne*, is a fortress surrounded by a high wall, which itself is on the edge of a precipice. Upon this wall huge monoliths alternate with small towers. A portion of this fortress was occupied as a temple, and here were found representations of birds resembling vultures and ravens perched upon immense pedestals. Also iron bells of curious shapes, innumerable signs of phallic worship, and a broken-down altar, were among the ruins.

In excavations in the neighborhood of this fortress were found drinking cups ornamented with hunting scenes, and numerous fragments of pottery of pure design, often rigorously mathematical in shape. Also tools used for working gold, a smelting furnace, and even a supply of cement, in which were imbedded ingots of gold and all sorts of workmen's tools. Numbers of these specimens will shortly arrive in England, together with a collection of native implements made by the explorer.—*La Construction Moderne.*

A DIONYSIUS BY PRAXITELES.

The museum of the Louvre has just become the purchaser of a piece possessing great value both historically and artistically. This is a bronze statuette of Dionysius, thought to have been discovered at Athens upon the acropolis, which for a long time was a part of the collection belonging to one of the Turkish pachas, a governor of Crete. Finally it passed into the possession of Signor Sambon, an Italian antiquary, who has but just disposed of it to the Louvre.

It has long been reputed by archæologists and amateurs as one of the purest productions of the Greek statuary, and all have agreed in attributing its extremely simple and exquisite execution to some of the great masters of antiquity. Signor Milani, in the "Museo Italiano," and later M. Reinach, have indisputably established that this master was Praxiteles. They establish the fact that this statuette answers exactly the description of a work by that celebrated artist mentioned by Callistrates, and in every minute detail establish their argument point by point.

THE LILLE PRIZE OF ROME.

The city of Lille, following in the footsteps of Paris, is to have its "Prize of Rome"; in fact the competition for the two purses founded by the Chevalier Wicar for painting and for architecture has already opened. These purses give to each of the fortunate artists a sum of about $320 per year and lodgings at Rome, besides which the city of Lille has added $60 for traveling expenses, and $160 pension per annum.

Without doubt the successful competitors will profit by the study of the treasures of antiquity, but certainly a trip through Belgium and Holland (and possibly certain parts of England), together with a careful and finished series of studies in Flemish art, would be of still greater benefit to these young members of our profession, and it is only to be hoped that soon some generous person will found a prize for this purpose.

THE MADRID EXPOSITION OF 1892.

The fourth century of the discovery of America, says *La Semaine des Constructeurs*, is to be celebrated in Spain in a particularly interesting manner. On this occasion it is intended to have an exhibition of retrospective art. Under the title of the "European Historical Exposition of Madrid" there will be presented as complete a picture as possible of the state of civilization in Europe, and especially in Spain and Portugal, at the period of Christopher Columbus. Painting, sculpture and engraving will be represented by work of the fifteenth, sixteenth and seventeenth centuries, to which is to be added a special department of decorative art. The programme is most attractive; but since it is to be a history of art that will be exhibited, why has architecture been thrown out of the list? Certainly a series of photographs of ensemble and details of the principal monuments of this period, accompanied by plans showing the evolution of three centuries, would have very considerable interest.

This exposition is to be opened the 12th of September, 1892, and closed the 31st of December of the same year. Prizes of medals and honorable mentions will be given.

ARCHITECTURAL COMPETITIONS.

UNDER date of June 2, the Royal Institute of British Architects issued the following suggestions for the conduct of architectural competitions, for the guidance of those wishing to inaugurate competitions:

SUGGESTIONS FOR THE CONDUCT OF ARCHITECTURAL COMPETITIONS SANCTIONED BY THE ROYAL INSTITUTE OF BRITISH ARCHITECTS.

1. The promoters of an intended competition should, as their first step, appoint one or more professional assessors, architects of established reputation, whose appointment should be published in the original advertisements and instructions, and whose decision should govern the selection of the designs.

All the designs sent in should be submitted to the assessors.

2. The duty of assessors should be:

(*a*) To draw up the particulars and conditions as instructions to competitors, and to advise upon the question of cost.

(*b*) To determine which of the designs conform to the instructions, and to exclude all others.

(*c*) To advise the promoters on the relative merits of the designs admitted to the competition, and to make a selection in accordance with the conditions.

3. Every promoter of a competition, and every assessor engaged upon it, should abstain absolutely from competing, and from acting as architect, for the proposed work.

4. The number and scale of the required drawings should be distinctly set forth, and they should not be more in number, or to a larger scale, than necessary to clearly explain the design. If perspective views be required, it should be so stated; and they should be uniform in scale, number, mode of coloring, etc.

5. Competitions should be conducted in one of the following ways:

(A) By advertisement, inviting architects willing to compete for the intended work to send in designs. The promoters, with the advice of the assessor or assessors, should make their selection from such designs. The author of the design awarded the first place should be employed to carry out the work.

(B) By advertisement, inviting architects willing to compete for the intended work to send in their names by a given day; with such other information as the candidate may think likely to advance his claim to be admitted to the competition. From these names the promoters, with the advice of the assessor or assessors, should select: (*a*) an architect to carry out the work; or (*b*) a limited number to compete, and each competitor thus selected should receive a specified sum for the preparation of his design. The author of the design awarded the first place should be employed to carry out the work.

(c) By personal invitation to a limited number of selected architects, to join in a competition for the intended work. Each competitor should receive a specified sum for the preparation of his design. The author of the design awarded the first place should be employed to carry out the work.

6. No design should bear any motto, device, or distinguishing mark; but all designs should be numbered by the promoters in order of receipt. Any attempt to influence the decision of the promoters, or of the assessor or assessors, should disqualify a competitor.

7. In every case the amount of premium or remuneration for the competitive designs should be fixed by the promoters, acting under the advice of the assessor or assessors, and should be paid in addition to the usual professional charges for carrying out the work.

8. Where a deposit is required for supplying the instructions, it should be returned on the receipt of a *bona fide* design; or if the applicant declines to compete and returns the said instructions within a month after their receipt.

9. A design should be excluded from a competition—

(*a*) If sent in after the period named (accidents in transit excepted);

(*b*) If it does not substantially give the accommodation asked for;

(*c*) If it exceeds the limits of site as shown on the plan issued by the promoters, the figured dimensions on which should be adhered to until officially altered;

(*d*) If the assessor or assessors should determine that its probable cost will exceed the outlay stated in the instructions, or the estimate of the competitor should no outlay be stated; provided always that should the assessor or assessors not have been consulted in the first instance respecting the cost, as recommended in Paragraph (*a*) of Clause 2, and should he or they be of opinion that the outlay stated in the instructions is inadequate for the proper execution of the proposed works, the assessor or assessors shall not be bound in the selection of a design by the amount named in such instructions, but the question of cost shall nevertheless be a material element in the consideration of the award;

(*e*) If any of the other instructions are violated.

10. It is desirable that all designs submitted in a competition, except any excluded under Clause 9, should, with the consent of their authors, be publicly exhibited after the award has been made, which award should be published at the time of exhibition.

11. The architect, whose design may be selected as the best, should be employed to carry out the work, and he should be paid in accordance with the schedule of *Professional Practice and Charges of Architects* sanctioned and published by the Royal Institute. If no instructions are given to him to proceed within twelve months from the date of the selection, he should receive adequate compensation in addition to the premium (if any) awarded to him. In the event of a part only of his original design being carried out, he should be paid a sum to be agreed upon in respect of the deferred portion, such sum to be merged in the usual professional charge when the completion of the design is proceeded with.

*** It should be understood that the Royal Institute issues these suggestions as a guide to promoters where a competition has been decided upon, but not as necessarily recommending the principle of competition.

ASTON WEBB, Hon. Secretary.
Reissue after revision June 2, 1892. WILLIAM H. WHITE, Secretary.

The Western Association of Architects, at the convention held at St. Louis in November, 1885, came to a similar conclusion regarding competitions and adopted a "code" or "competition contract" upon which all important competitions among architects of standing have been based to the present time. The "code" is reprinted in connection with the R. I. B. A. suggestions that a comparison may be made.* It is as follows:

* For full report of Committee on Competitions, see THE INLAND ARCHITECT for November, 1885.

CODE.

.....18....

M.....

Architect.....

DEAR SIR:—The undersigned building committee, being vested with the power to erect and complete a.....
building on the following property.....
hereby invites you to form one of.....competitors for the position of architect. The others to be the following.....

Each design to embody the following suggestions.....
.....
.....

The cost of the building, according to your design, not to exceed the sum of.....
.....
exclusive of architect's fees; for which amount we are assured in writing by the following well known experts that the building can be completed, viz.....
.....
.....

The competition to be conducted under the following code: The selection of the best design, which shall carry with it the appointment of architect of the building, shall be made by an expert jury of three; one chosen by the named competing architects, one by this committee, and a third by the first two selected. Each to be an expert architect of good standing, and not from the town where the building is to be erected. This committee to meet all expenses of jury. The competing architects to meet and select their juryman without expense to the committee.

Each set of drawings, with its accompanying description, to be encased in a sealed envelope or portfolio, and between the hours of 12 o'clock M., and 1 o'clock P.M., of.....
to be placed in the hands of.....
at.....which gentleman has been appointed custodian by this committee.

The custodian to open all the envelopes at the above-mentioned time in the presence of those competitors who desire to be present, and no one else, and no design to be accepted by him after that hour. He shall thereupon cull out every drawing or description not in accordance with the requirements herein contained. Said drawings and descriptions so culled out to be then inclosed in an envelope and sealed by the competitors, the custodian to keep the envelope unbroken until after the jury decides. Each competitor to be allowed one design only, and no alternative. The custodian, in the presence of the competitors, to then reseal the accepted drawings and descriptions of each set, and allow no one to examine any of them thereafter until the jury meets, when he shall unseal each accepted set before said jury for their inspection. The custodian to see that no one else inspects any of these drawings or descriptions until the jury has reached a decision.

The jury, either publicly or privately, is not to look at any drawing or description for this building other than those that shall be laid before it by the custodian, and which are in strict accordance with the requirements herein contained; and must base its decision on the designs so submitted.

The undersigned committee will leave the jury free, and no preference or leaning of the committee, or any member of it, shall be conveyed to any juryman, publicly or privately, directly or indirectly, until a decision has been made and published.

The jury is to allow no direct or indirect conferences with any competitor, in public or private, other than those proper consultations to be held between the jury as a whole and the individual competitor, for the purpose of receiving necessary explanations in regard to the design.

Should any competitor seek further explanations than those contained herein, he may apply directly to this committee, who shall thereupon send the question and answer alike to the rest of the competitors, in order to keep all on exactly the same basis throughout the competition.

On or before the ..... day of ....., 18..., the jury shall premiate one of the designs of the competitors, and its judgment shall be final and binding; and this selection shall carry with it the appointment of the designer as architect, with the regular compensation allowed in the schedule of charges adopted by the Western Association of Architects.

The premiated design may afterward be altered, and the cost increased or decreased by this committee, but this is not to be construed as revoking what is said herein as to the cost of any design according to its description, at the time same is submitted to the jury for a choice.

No competitor shall serve on the jury, or be allowed to give any advice in any matter relating to the competition.

Each design shall consist of the following drawings, all of a uniform method of presentation, and to a uniform scale, namely:
.....
.....

A written or printed description and specification may accompany each set of drawings, but without any sketches interspersed.

Before any design is finally premiated, the cost of the building as shown by it shall be determined by an assessor, who shall be satisfactory to a majority of the competing architects, and who shall act under oath.

Should the assessor claim that a building cannot be erected according to any given design for the sum mentioned, the designer thereof shall be heard by the jury before throwing him out of the competition on that account. Should the jury then determine that the assessor is right, and that the cost will exceed the amount named above, it must throw out the design and proceed to premiate the design of another one of the architects in the competition. Cost of assessor and his expenses to be paid by the building committee.

At the close of the competition this committee agrees to return each set of drawings except the one presented by the successful architect, and, further, that no part of any rejected design which is original as to this competition, shall ever be used in the construction of the building, without the written consent of the designer thereof.

Should the work not proceed within one year from the date of the selection of the design, the premiated architect shall then be paid for what he has already done up to that date, according to the schedule of charges adopted by the Western Association of Architects, his design in competition being ranked as full preliminary sketches. Whenever the work shall proceed thereafter, the premiated architect shall still be the architect, having full charge as above mentioned.

} Committee.

OHIO STATE CHAPTER, A. I. A.

THE following circular letter has been issued to members of the Ohio State Chapter of the American Institute of Architects in regard to the resolution adopted at the last meeting of the Institute in relation to local Chapters:

DEAR SIR,—At the last convention of the American Institute of Architects held at Boston, the following resolution was passed:

WHEREAS, It is important that the profession—especially the members of this Institute—should perfect such organization as will most effectually combine the influence of its members in every work of importance to the profession, and

WHEREAS, The legislation by the several states sought by the profession can be more easily effected through state organizations and their representatives than through local organizations or no organizations, and

WHEREAS, There are many other advantages which may and will accrue from state organizations, and

Resolved, That the board of directors be requested to suggest to the several local Chapters such form of state organization as can best unite and uphold the interests of the profession and its members in the several states; and

Resolved, That membership in such state organization shall rest upon the same qualifications as in local Chapters as laid down by this Institute, and that membership in such state organization shall be accepted as the requisite to membership in this Institute *now required in local Chapters.*

At an adjourned meeting of the Ohio Chapter, American Institute of Architects, held in Boston, October 30, 1891, the following resolution was passed in accordance with the previous action of the Institute:

Resolved, That a committee of three be appointed, authorized to prepare a definite plan or arrangement in regard to dues, privileges and relations which shall exist between the state and local Chapters; their report to be offered as an amendment to the Constitution and By-Laws in such manner as is provided for by the Constitution and By-Laws, and shall be submitted to letter ballot at as early a date as practicable to obtain a *full* expression of the members.

Desiring to encourage the formation and existence of local Chapters wherever possible and afford the advantages of membership and organization to such of the profession as are so located that the formation of local Chapters is impracticable or inconvenient, and at the same time approximately equalizing the expense of membership necessary to secure Institute privileges, the committee would recommend the following amendments to the By-Laws as advisable to accomplish this purpose:

First. That Article V, Section 1, be amended to read: "All regular members and associate members shall pay an initiation fee of Ten Dollars ($10) within three (3) months from the time they are notified of their election by the Secretary. If not paid within that time, their election shall be declared void by the Executive Committee. *Should any applicant present a certificate of membership in good standing in any local Chapter of the American Institute of Architects, signed by the Secretary and President of such Chapter, such certificate shall be accepted in lieu of the initiation fee, and also in lieu of the forms of application prescribed by the first part of Article I, Section 3, of these By-Laws.*"

Second. Article V, Section 2, shall be amended to read, "The dues of regular members and associate members shall be $5 per year, *except for persons who are also members of local Chapters, whose dues shall be $2 per year; all dues shall be* payable in advance, during the month of January of each year."

Third. Article V, Section 6, shall be amended to read, "A sum not to exceed $5 for each member in ACTUAL ATTENDANCE AT ANY ANNUAL MEETING *may* be allowed to defray the expenses of entertainment at such annual meeting, *at the discretion of the Executive Committee.*"

(Amendments in italics.)

It is quite apparent that state Chapters should be supported and be active in their work. The influence of local Chapters is circumscribed as compared with a body even of the same members organized as a *state* Chapter. Legislators who will not give ear to local or class legislation will give consideration to matters presented by a state organization. It is upon the prestige and vigorous work of the state Chapters that all the desired legislation, both state and national, depends. They will thus be an aid and a benefit to the local Chapters.

We consider it within the province of the state Chapter and a duty of their Executive Board to collect and have printed all existing state laws pertaining to building interests, liens, etc., in the state of Ohio, and also secure advance copies of new laws as soon as passed, and distribute to all members of the state Chapter and other architects on application. By having these collected we can point out existing inconsistencies and secure the passage of uniform and comprehensive laws, and at the same time take a step toward gaining that recognition which is necessary before we can secure the desired legislation in our interests.

We trust that each member will take the matter under careful consideration, and we feel confident that in so doing they will see the great possibilities for usefulness that open out for the state organization beyond what can be accomplished by local Chapters, and the benefit that may be derived from the mutual interchange *of ideas and opinions on professional subjects.*

In order that we may secure a full expression of the membership on this subject, these circulars are sent to each member in advance for consideration.

The amendments to the By-Laws will be considered, discussed and determined at the next meeting, and it is desired that any members who cannot attend will, prior to such meeting, notify the Secretary of their wishes regarding this matter.

Respectfully submitted,

Approved,

JAMES W. MCLAUGHLIN,
GEORGE W. KRAMER,
SAMUEL HANNAFORD,
GUSTAV W. DRACH,
F. A. COBURN,
Executive Committee.

J. W. YOST,
GEORGE W. RAPP,
GEORGE W. KRAMER,
Committee.

THE ARCHITECTURAL SCHOOL AT THE CHICAGO ART INSTITUTE.

IT is now two years and a half since a department of architecture was founded in the school of the Art Institute of Chicago. This department, seriously undertaken by an institution having the full confidence of the public, has, quietly and almost unheralded, solidified into a regular architectural school. It should be better known than it is that there is now opportunity without leaving Chicago to study not only the designing and drafting connected with architecture, but also the mathematics, construction and history.

The present prescribed course at the Art Institute requires two years' full attendance, a period certainly short enough to acquire even the rudiments of architectural training. The classes are open to both men and women. Mr. Louis J. Millet has general charge of the school, assisted by Mr. Walter F. Shattuck, the latter teaching mathematics and exercising supervision over the drafting. Regular courses of lectures upon a variety of professional topics are delivered by practicing architects of the city.

During the present year the students have pursued by regular recitations and examinations geometry, descriptive geometry and trigonometry, have practiced constantly drafting and freehand drawing, and have begun the design of buildings. A long and systematic course of lectures upon the History of Architecture has been given by Mr. William A. Otis, courses upon Construction and the Theory of Design by Mr. W. L. B. Jenney and Mr. Irving K. Pond respectively, while a course upon Sewerage and Ventilation by Mr. William S. MacHarg, the civil engineer, is now in progress. A very good beginning of a library upon architecture has already

been acquired by gift and purchase, and the various academic lectures and classes of the Art Institute are open to students of architecture under the advice of their teachers. Miss C. D. Wade directs the freehand watercolor work. There are no evening classes, experiment having shown that successful systematic study could only be secured from full-time students.

The next year will open about October 1, 1892, when it is hoped that the number of students will be greatly increased.

The advantages afforded by the Art Institute through its collections and opportunities for following the arts of design are very great.

PHOTOGRAPHY IN ARCHITECTURE.

WHILE all architects are deeply interested in photographs and spend large sums each year for pictures of their own work and that of their contemporaries, they have yet to become photographers. When a photographic outfit was an impossibility the architect or draftsman depended upon his skill in sketching to secure to him a peculiar piece of construction or design which he might observe and wish to retain, but at best this sketch was unsatisfactory, for the mind was obliged to supply the detail and the general effect was often lost. Now all this is changed and the architect of today takes a camera with him on his travels and in a moment secures what hours of sketching would not give him.

It is true that many have attempted the use of the camera and given it up because of the complicated method of operation, but there are cameras of simple and accurate operation. Take the "Hawkeye," for instance, made by the Blair Company, of Boston. It makes a picture 4 by 5 inches, which is as large as an architect needs for "sketching" purposes, though the "Kamaret, newly improved so as to take tall buildings at an angle with a 5 by 8 plate, is an excellent camera and simple in operation. The "Hawkeye" is fitted so that glass plates or film rollholder can be used. In operation it requires but three movements. It may be packed with holders and put under your seat in a car. As the train stops at a station you see something you wish to photograph. You reach for your "Hawkeye," open the top and pull the slide of the plateholder. As you walk to the door you turn the focus to the estimated distance and set the shutter according to the light out of doors. When you reach the platform you hold the camera

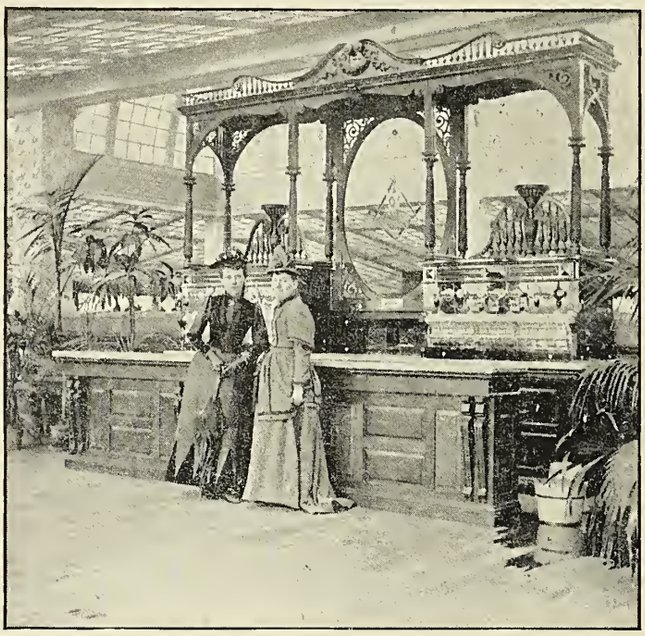


COACHING PARTY OF ARCHITECTS, FRANKLIN PARK, BOSTON.
TAKEN WITH A "HAWKEYE" CAMERA.

and touch the shutter-spring, and the picture is yours. This is simple indeed, and it does not take a year's practice either. Now it is not necessary to send this plate to the makers to have it developed and printed. When you get home at night (if you have no darkroom) go into the kitchen, light your ruby lantern and mix the developer and in a few minutes your negative is secured, and in the morning it is dry and you can print a copy while you are eating your breakfast. Surely every architect should have a "Hawkeye."

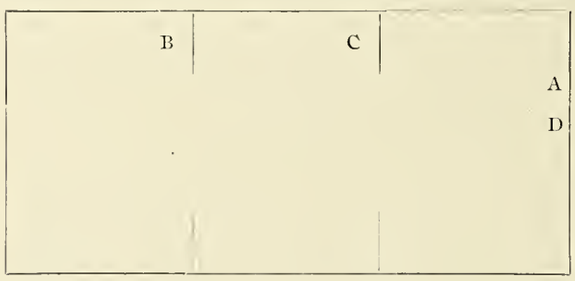
This is not all this camera will accomplish. You wish to preserve a picture of a residence interior. The light is not sufficient to make a good daylight picture. Therefore you use a flashlight. Suppose you have three rooms, a parlor, sitting-room and dining-room, say in line with wide curtain openings or folding doors between. Place the camera at the best point of observation in the parlor at A and open the shutter (gaslight will not affect the plate unless it shines directly upon it). Take a small table and place it against the wall at B and set off a flashlight. Then move the table to the same position at C and set off another flashlight, repeating again at D. Then close the shutter and the picture is taken. If these flashlights can be set off simultaneously the effect is somewhat improved. (See diagram below.)

What will an outfit cost? The outfit with which the group of tallyho coaches was taken and in which several well-known



OBSERVATORY, MASONIC BUILDING, CHICAGO.
TAKEN WITH A "HAWKEYE" CAMERA.

architects can be distinguished, was one of the first Hawkeye cameras made and cost $15, with perhaps $5 added for plate-holders, developing apparatus, etc. The view of the observation floor of the Masonic Temple was taken with a camera of later make fitted with a special double lens, which adds somewhat to the original cost. But the main point is the accuracy of the work and the simplicity of operation, and in this the "Hawkeye" is



preferable. A valuable use of the "Hawkeye" is the copying of all plans before they are sent out, the private note which the architect can make upon the stage of construction at a given time, which afterward cannot be disputed, and a dozen other uses which make a "Hawkeye" outfit an indispensable adjunct to every office.

AN INSURANCE-ARCHITECTURAL EXHIBIT BUILDING.

THE secretary of the Illinois Chapter of the American Institute of Architects received the following communication in relation to a fire insurance exhibit, for which space has been allotted at the World's Columbian Exposition:

CHICAGO, July 16, 1892.

Mr. Geo. Beaumont, No. 115 Dearborn street, City, Secretary Illinois Chapter American Institute of Architects:

DEAR SIR,—Referring to the matter of the probable amalgamation of the underwriters' and architects' interest in the Insurance Building Exhibit of the World's Columbian Exposition, we beg to advise you that the underwriters secured some time ago valuable franchises from the World's Columbian Exposition, as follows:

First.—An allotment of space, 75 by 125 feet, at Jackson Park, in a most desirable situation.

Second.—The privilege of erecting thereon a building to be devoted entirely to a display of methods and materials showing the evolution of building construction.

Third.—Club rooms where members could register, meet their friends, socially or otherwise—a general rendezvous and bureau of information.

Fourth.—The only provision being that we erect this building at our own expense, and that the Exposition have reserved for them sufficient space for a model fire department in active operation in the first story of the building.

We believe that the interests of architects and our own in construction are identical. We also believe that if the money can be raised promptly—say not to exceed $15,000 by the architects—we can go on with this building, combining our interests, making the Underwriters' and Architects' Building Exposition one of the most interesting and instructive exhibits at the Fair, and also self-supporting.

The connection of the architects with the enterprise will allow its scope to be extended far beyond the original idea of fire protection, and provide for its covering the wide field of decorative and sanitary building arts. The ground

space for the building can likewise be extended to at least 80 by 190 feet. Very respectfully yours,

THE WORLD'S INSURANCE BUILDING EXPOSITION,
By W. A. ALEXANDER.

A meeting of the executive committee of the Chapter was called and it was decided to ascertain the financial support the proposition would receive from architects, and a circular letter was ordered sent to the architects of the United States, asking their opinion regarding the matter and the amount each would be willing to contribute toward the $15,000 necessary to contribute to the proposed exhibit. The matter is worthy of the support of architects generally, as the result would be of incalculable benefit to the profession.

OUR ILLUSTRATIONS.

Nester Block, Marquette, Mich.; Charlton & Gilbert.

A St. Louis residence, Grable & Weber, architects, St. Louis, Missouri.

Residence for S. M. Nave, St. Joseph, Mo.; Eckel & Mann, architects.

Block of flats for G. W. Crouch, Rochester, N. Y.; Block & Barnes, architects.

Residence for T. C. Power, Helena, Mont.; Willett & Pashley, architects, Chicago.

St. Peter's Church and parish buildings, St. Louis, Mo.; Tully & Clark, architects.

German Home for Old People, Cincinnati, Ohio; James W. McLaughlin, architect.

House for Nelson Millett and hall of same, Denver, Colo.; A. Morris Stuckert, architect.

Cumberland Presbyterian Church, Madisonville, Ky.; William C. Smith, architect, Nashville, Tenn.

Nebraska State Building, World's Columbian Exposition, Chicago; Henry Voss, architect, Omaha, Neb.

Two houses in Charlesgate, East Boston. Of one, Peabody & Stearns, architects; the other, McKim, Mead & White, architects.

Union Trust Building, St. Louis, Mo.; Adler & Sullivan, Chicago, and Charles K. Ramsey, St. Louis, associated architects. Two double-page cuts are given, showing general perspective view and detail of main entrance.

Photogravure Plate: Residence of A. Offner, Avondale, Cincinnati; A. O. Elzner, architect. A Chicago residence.

PHOTOGRAVURE PLATES.

(*Issued only to subscribers for the Photogravure edition.*)

Entrance, Ashland Block, Chicago; D. H. Burnham, architect.

Portion of Title & Trust Building, Chicago; Henry Ives Cobb, architect.

Residence of Mr. Galbreath, Cincinnati, Ohio; Waite & Cutter, architects, Boston.

Residence of Dr. A. Springer, Norwood, Cincinnati; A. O. Elzner, architect.

Views in house of Grant B. Schley, New York; W. W. Kent, architect. Three full-page plates are given, showing the following views: in parlor, entrance hall, dining room.

SYNOPSIS OF BUILDING NEWS.

Architects are invited to furnish for publication in this department monthly or occasional reports of their new work before the letting of contracts. Reports of buildings costing less than $5,000 are not published.

Chicago, Ill.—Architect W. T. Lesher is making plans for a four-story and basement store and flat building, to be erected on Indiana street near Ada, for George Fairweather; to be of pressed brick and stone front, and cost $12,000. For Frank Murphy, on Fifty-fifth boulevard near Halsted street, a three-story flat building, of pressed brick and stone; to cost about $18,000. For Charles Urath, corner Elkhorn avenue and Lincoln street, a three-story store and flat building, of pressed brick and stone, 106 feet front by 75 deep; to cost $35,000. For John Morton, on Fremont street east of Belmont avenue, two three-story flat buildings, of pressed brick and stone fronts, copper bays, hardwood trim, etc.; to cost about $16,000. He is also finishing drawings for a five-story hospital, 135 by 100 feet in size, to be erected corner of Lincoln and Congress streets, for the Railway Brotherhood Association. For John N. Cooper, on Indiana street to Illinois street east of St. Clair street, a two-story livery stable, 66 by 218 feet in size, to be of pressed brick and stone, and cost about $30,000.

Architects Marston & Hotchkins: For Elias Benzing, at Sheridan Park, a two-story frame residence; to have stone basement, electric wiring, furnace, etc. For M. Schelgren, at Ravenswood, a two-story residence; to be of frame with brick basement, have all the sanitary improvements, furnace, etc. For La Grange Water Works Company, a two-story frame residence with brick basement, sanitary plumbing, furnace, etc. Also making plans for power house at Covington, Indiana, for the Covington Water Works Company; to be of brick with slate roof, electric light, etc.

Architect C. M. Palmer: For Potter Palmer, on Huron street near the lake, a block of five four-story residences, 102 feet frontage by 77 deep; to be of blue Bedford and buff stone fronts. For Mrs. H. D. Piatt, at 4423 Prairie avenue, a three-story residence, 25 by 70 feet; to be of Bedford stone front.

Architect D. A. Lapointe: For James Perry, at 16 Sacramento avenue; a two-story and basement flat building, 40 by 55 feet, to be of cut stone front, and cost $16,000. For E. J. Lewis, on Washington boulevard east of Francisco street, a three-story and cellar flat building; 50 by 75 feet, to be of stone front; and cost $30,000. For the same owner, on Washington boulevard near Kedzie avenue; a three-story flat building, 25 by 75 feet; to cost about $13,000. For Mrs. M. Venard, at 341 Warren avenue; a two-story and cellar flat building, to have a stone front, and cost $10,000. For O. M. Brady, at 1304 Fulton street; a two-story flat building of stone front; to cost $8,000.

Architect Perley Hale: For C. W. Lasher, corner of Fulton and Robey; a two-story flat building, 75 by 125 feet in size, of pressed brick and stone; cost $21,000.

Architects Crowen & Richards: For Roman Stobiecki, on Milwaukee avenue near Division street; a four-story store and flat building, to be of pressed brick and stone, have tile and mosaic floors in the main hall, ornamental and beveled glass; size 25 by 100 feet; cost $15,000. For Gus. Walker, on Fifty-first street; a two-story store and flat building, 45 by 75 feet, to be of pressed brick and stone front; cost $10,000. For Edmund Nicholas, a three-story flat building, to have two fronts, 50 by 60 feet, of pressed brick and stone, with copper bays and cornice; interior to be finished in red oak and Georgia pine; cost $14,000. They have also just let contracts for a five-story hotel, 65 by 150 feet in size, to be erected on Lake avenue and Thirty-ninth street, for Strickland & Co. It will be of pressed brick and stone, the interior to be finished in hardwood and Georgia pine; cost $50,000.

Architect Thomas Wing is making plans for a five-story addition to the plant of D. H. Fritts, on Smart street near Austin avenue. It will be of pressed brick and stone front, 50 by 125 feet; and cost $20,000.

Architect Ira C. Saxe: For Ed. Lundy, on Rhodes avenue, near Sixty-first street, a two-story flat building, of pressed brick and stone. For W. E. Coman, at Ravenswood; a two-story flat building, to be of stone and pressed brick. Also for same owner, on Ellis avenue near Thirty-sixth street; a three-story flat building, of pressed brick and stone. For A. Shook, on California avenue near Ogden, a three-story flat building, 52 by 88 feet; to cost about $15,000.

Architects Ostling Bros.: For C. Olson, on Milton avenue near Oak street; a four-story store, shop and flat building; 25 by 100 feet; to be of pressed brick and stone front; cost $16,000. For M. Pauly, at 178 Jay street; a three-story flat building of pressed brick and stone; to cost $8,000. For Charles Ostrand, on George street near May; a pressed brick and stone front cottage; to have best plumbing, furnace, etc. For Charles Kallbon, at 112 Schiller street; a three-story flat building of pressed brick and stone; to cost $8,000. For Mrs. Newberg, on Newport avenue near Clark street; a three-story flat building of pressed brick and stone front; to cost $9,000. For L. Hesselroth, on Chicago avenue and Franklin street; a five-story store and flat building; 75 by 130 feet in size; to have two fronts of pressed brick and stone, all the improvements, steam heat, electric wiring, etc.; cost $90,000.

Architect F. L. Fry: For Simon Strans, at 62 West Madison street; a three-story furnitnre store; 40 by 100 feet; to cost $15,000. Pressed brick and stone front, electric light and all improvements. For Mr. Falkner, on Drexel avenue and Fifty-ninth street; a two-story flat building of pressed brick and stone front. For Michael Graf, at Irving Park; a two-story frame residence. For T. M. Simmons, on Twelfth street near Lincoln; a three-story store and flat building; 50 by 75; to cost about $20,000. Pressed brick and stone front, with galvanized iron bays, all sanitary improvements, electric wiring, etc.

Architect L. G. Hallberg: For W. A. Hansburg, on Stony Island avenue between Seventieth and Seventy-first streets; a three-story flat building; 50 by 72 feet; to be of pressed brick and stone and cost about $15,000.

Architect W. H. Drake: For W. H. McDonald, on the northwest corner of Twenty-seventh and Dearborn streets; a four-story flat building and one store; to be of pressed brick and stone, galvanized iron bays and cornice; to cost about $15,000. For H. E. Bennett, on the northeast corner of Armour and Twenty-seventh streets; a four-story flat building; 48 by 100 feet; to be of pressed brick and stone front, with first story and basement of stone; cost $25,000.

Architects Beers, Clay & Dutton have just let contracts for the four-story and basement apartment house to be erected at 3450 Prairie avenue, for C. E. Adams. It will have a stone front of handsome design, with stone bays, hardwood interior finish, electric light, steam heat, hot-water plant, etc; the cost will be $30,000.

Architect A. L. Schellenger made plans for remodeling the Central Church of Christ, on Thirty-seventh street and Indiana avenue. He will put on a new front seventy-three feet; will be all of stone; also raise up the old building eight feet and build underneath of stone. The interior will be thoroughly renovated and have added, steam heating, electric light, stained glass windows, etc. The seating capacity will be increased 500, making the accommodation 1,100. He is also getting out drawings for a M. E. church, 68 by 110 feet in size, to be erected on Fifty-fifth street and Emerald avenue. It will have a handsome stone front, slate roof, steam heat, electric light, stained glass windows and all the improvements.

Architects Wilson & Marble: For W. H. Pruyn, on Drexel boulevard, Nos. 247 and 249, two three-story residences, 50 by 80 feet in size; to cost $40,000. The fronts will be of very attractive design in Bedford and Portage brownstone. The interiors will be handsomely finished in hardwoods, with marble wainscoting, tile and mosaic floors, specially designed consols and mantels, hot-water heating, electric light, etc. For Thomas W. Phillips they are designing two fine three-story residences, to be erected on Wrightwood avenue, 150 feet east of Hampden court. They will have stone fronts, slate mansards and gravel roof; hot-water heating, electric light, hardwood interiors and the finest sanitary arrangements; they will cost about $30,000. For W. H. Moore they designed a two-story barn, 32 by 100 feet in size, to be built at 29 Wabash avenue. For Berriman Brothers, two three-story residences, to be erected at 1911 to 1913 Diversey street. They will have stone fronts, steam heating, electric light, and all improvements, and cost about $40,000. For John G. Wilden, on Prairie avenue near Forty-sixth street, a three-story residence, to have a stone front, hardwood interior, hot-water heating, electric light; cost $20,000. For Mrs. M. Wert, on the northwest corner of Kimball avenue and Jackson boulevard, a three-story and cellar flat building; to be of stone front with galvanized iron cornice; steam heating, electric light, all the sanitary improvements, and cost about $20,000. Have just completed plans for the Everett apartment house, to be erected on Washington avenue and Fifty-sixth street. It will be a handsome four-story structure covering a ground space of 150 by 100 feet. The basement will be of rock-faced stone and above this will be of pressed brick and stone; steam heating, electric light, marble and tile work, gas ranges and fireplaces and the best of plumbing and modern conveniences will be put in; cost about $150,000.

Architect Charles S. Frost: For James Ingram, on Michigan avenue near Twenty-second street, a seven-story store and apartment house, 50 by 119 feet; to cost $125,000. The first two stories will be of stone and above of buff pressed brick and terra cotta. He is also preparing plans for a pretty station, to be erected at Rockford, Illinois, for the Chicago & North-Western Railway Company. It will be of rock-faced stone and pressed brick with slate and copper roof; and cost about $25,000.

Architects Faber & Pagels: For J. F. Jarecke, corner of Huron and Noble streets, a four-story and basement store and flat building, 51 by 85 feet; to be of pressed brick and stone front, pressed brick bays, gravel roof, all the sanitary conveniences, steam heating, etc.; cost $22,000. For August Schubert, on Washtenaw avenue, near Humboldt Park, a two-story and basement flat building; of pressed brick and stone front, sanitary conveniences, furnaces, electric wiring, etc.; cost $8,000.

Architect W. D. Cowles: For M. H. & F. H. Biggs, at South Evanston, two two-story and attic frame houses; to have stone basements, sanitary plumbing, furnaces, etc. For E. D. Murray, on South Chicago avenue near St. Lawrence avenue, a three-story store and flat building, 68 by 67 feet in size; to have pressed brick and stone front, hardwood finish, plumbing, electric wiring, etc.; cost about $20,000. For the same owner, on Cottage Grove avenue near South Chicago avenue, a four-story store and flat building, 63 feet front and 76 feet deep; to be of pressed brick and stone, with copper bays and corner tower of slate and copper; the cost will be about $30,000.

Architects Mayo & Curry: For J. F. Keeney, remodeling building corner of Ohio and Rush streets, "Granada flats"; they will put in marble wainscoting, mosaic floors, hardwood finish, steam heat, electric light, and all the modern conveniences; the cost will be about $35,000. For J. Clark, at Oak Park, a two-story frame residence; to have stone basement, hardwood finish, furnace, etc.

Architect I. C. Zarbell: For Colonel Kennicott, on Forty-first and Ellis avenue, a three-story store and flat building, 60 by 75 feet; of pressed brick and stone, sanitary plumbing, steam heating, etc.; to cost $12,000. For Adolph Arnold, on Surf street near the lake, a three-story residence of very handsome design; stone front, hardwood finish, etc.; cost about $30,000. For Herman Arnold, on Wellington street near the lake, a three-story residence and stable; to be of stone, and cost $30,000.

Architects I. K. & A. B. Pond: For J. A. Miller, on Woodlawn avenue and Fifty-fifth street, a three-story and basement apartment building, 50 by 84 feet; to cost $26,000. It will be of buff and brown pressed brick with stone trimmings, slate and gravel roof; cost $20,000. For William M. Craig, on Forty-eighth and Kenwood avenue, two three-story and basement residences; to cost $22,000. Also two-story suburban villa, to be erected at Evanston, for James T. Hatfield. They are also getting out drawings for a three-story academy, two three-story and basement dormitories and several cottages for the Lake Forest

university. In the academy there will be a chapel with accommodation for a congregation of four hundred. For E. B. Smith, they are working on drawings for a four-story tenement, 50 by 80 feet in size, to be erected on Lake avenue near Fifty-sixth street. It will have a pressed brick and stone front, gravel roof, hardwood finish and all the conveniences; cost about $20,000.

Architect H. M. Hansen: For Henry Jaeshke, at 1765 North Halsted street, a three-story flat building; of pressed brick and stone front, 80 feet front. For Henry Rang, on Dearborn avenue, a double three-story residence; of stone front, gravel roof, etc.

Architect E. R. Krause: For A. Zeese, at Buena Park, a two-story basement and attic residence; 45 by 60 feet in size, to be of stone all round with slate roof, hardwood interior finish, hot-water heating, electric light, etc.; cost about $30,000. For J. Gross, on Deming court, a two-story basement and attic residence, to have a stone front, slate roof, hardwood finish, hot-water heating, electric light; cost $20,000.

Architect T. C. Goudie: For C. H. Moore et al., nine two-story frame houses, brick basements, sanitary plumbing, furnaces, laundries, etc., to be erected at West Ravenswood. For J. H. White, at Rogers Park, a two-story frame residence; stone basement, plumbing, furnace, etc.

Architect Fred. Ahlschlager: Making plans for Jewish Temple (Anshe Emeth). It will be two-story and basement, 26 by 81 feet in size, have stone front, tin roof, hardwood finish, pews, stained glass, heating apparatus, etc.; cost about $10,000. Also making plans for a three-story basement and attic building, 28 by 124 feet in size, to be erected corner of Halsted street and Englewood avenue for the German Illinois State Bank and Safe Depository of Chicago. It will have a stone front, hardwood finish, steam heat, electric light and all the improvements; the cost will be $30,000. For H. Benjamin, at 6230 Halsted street, a three-story and attic store and flat building, 50 by 85 feet, to have a pressed brick and stone front, hardwood finish, electric light, etc.; cost about $20,000.

Architects Lamsou & Newman: For H. Rech, corner of Monroe and Honore streets, a four-story and basement flat building, 25 by 80 feet, to be of stone front with copper bays, pressed brick side, copper cornice, hardwood finish throughout, open plumbing, steam heating; cost $23,000.

Architect L. G. Quackenboss: For H. Botsford, on Ogden avenue near Twelfth street, a four-story store and apartment house, 100 by 70 feet in size, to be of pressed brick and stone with copper bays, etc.; cost $40,000.

Architects Hetherington & Warner: For Thomas Corrigan, on Van Buren street near Sacramento avenue, a three-story addition, 50 by 78 feet in size, to be of pressed brick and stone with copper bays, gravel roof, sanitary plumbing, steam heat, electric light, etc.; the cost will be about $20,000. For G. Clark, on Wellington street near Sacramento avenue, a two-story and basement flat building, of pressed brick and stone, plumbing, furnaces, etc.

Architect W. R. Gibb: For J. Nichols, at 71 Armour street, a three-story and basement flat buildiug, of pressed brick and stone trimmings, galvanized iron bays, etc.; cost $8,000.

Architect Robert Rae: For C. Follansbee, at Twenty-third and State streets; a stable to be remodeled into a modern three-story flat building, to have all the sanitary and modern conveniences, steam heat, etc.; cost about $15,000. For W. H. Cairnduff, at Winnetka, three two-story frame residences, stone basements, all the sanitary improvements, hot-water heating, etc. For George A. Otis, at 4585 Oakenwald avenue, a three-story residence, 27 by 60 feet, of pressed brick and stone, slate mansard and gravel roof, quarter-sawed oak finish, steam heating, electric light, the best of plumbing; $10,000. For L. Brinckenhoff, at Kenilworth, a two-story basement and attic frame residence; stone basement, hardwood finish, furnace, etc. For E. E. Fayerweather, at Hinsdale, a two-story cellar and attic frame residence, stone basement, hardwood interior, steam heating, electric light, all the sanitary appliances; cost about $10,000.

Architect W. L. Carroll: Making plans for a four-story apartment house; 38 by 104 feet in size; to be erected at 491 to 493 Dearborn avenue, for L. B. Mantonya. It will have a stone front of very handsome design, the interior to be finished throughout in hardwoods and have marble wainscoting, tile floors, fine open plumbing, gas ranges and fireplaces, refrigerators, sideboards, elevator, steam heating, electric light, laundries, etc.; cost $50,000.

Architect William Strippelman: For W. W. Kimball & Co., on Twenty-sixth and Rockwell streets, a five-story warehouse; 80 by 180 feet in size; to be constructed of common brick with stone trimmings; cost $52,000. For J. M. Smyth, in the rear of Jackson boulevard east of Dearborn street, a three-story stable; 100 by 100 feet in size; to be of pressed brick, rockfaced stone basement, gravel roof, 130 stalls, etc.; cost $30,000. For C. B. Shefler, at 4420 Ellis avenue, a two-story residence; 25 by 68 feet in size; to be of Ashland brownstone front, flat roof, hardwood finish, electric light, hot-water heating, etc. For Mrs. Amelia Sunderland, at 2967 South Park avenue, remodeling residence. For Joseph Klicka, on Humboldt boulevard north of North avenue, a two-story residence; 30 by 75 feet in size; to cost $15,000. To be of stone front and side, have hardwood finish, hot-water heating, electric light, etc.

Architect W. K. Johnston: For John Torrent, at Muskegon, Michigan, a two-story basement and attic residence; 60 by 93 feet in size; to cost $65,000. It will be constructed of blue Bedford stone, with red slate roof; have interior elegantly finished in hardwoods, electric and gas lighting, etc. Also completed drawings for the library building; 80 by 144 feet in size; to be erected at Holland, Michigan, for Hope College. To be of stone with slate roof, hardwood interior finish, steam heating, electric light, etc.; cost $30,000. Also completed plans for the City State Bank of Holland, Michigan. It will be three stories, of pressed brick and stone, tin roof, steam heat, electric light, etc.

Cincinnati, Ohio.—Reported by Lawrence Mendenhall:

The situation since my last report has not changed materially, the volume of building not being increased. The strike scare has had its effect, and many contemplated structures have only progressed as far as the pencil stage of construction, namely, the preparatory drawings of the architects. Unintentionally, no doubt, the Builders' Congress raised an antagonistic spirit in the breasts of the architects, by the issuing of a circular, the purport of it being that they would not bid with persons outside the congress. This struck the architects as being decidedly dictatorial and resulted in their advertising for all contractors outside the congress to send their names to the secretary of the Chapter. Thus the matter stands.

Architects Crapsey & Brown: For the Baptist church at Augusta, Kentucky, an edifice; materials: brick, stone trimming, stained glass, slate roof, hardwood, furnaces, gas, plumbing, seats, etc.; cost $8,000. Also for Henry Broadwell, Tusculum, Ohio (Cincinnati), a residence; materials: frame, slate roof, hardwood, mantels, grates, stained glass, furnace, gas, plumbing, etc.; cost $5,500.

Architect James W. McLaughlin: For Mr. Caleb W. Shipley, a residence; materials: frame, slate roof, stained glass, hardwood, grates, mantels, gas, plumbing, etc.; cost $6,000. For Mr. Thomas McDougall, a chapel for the Presbyterian church; materials: frame, slate roof, furnace, pews, stained glass, etc.; cost $8,000; size 40 by 75 feet.

Architect S. S. Godley: For Mr. Samuel Fleischmann, a residence; materials: pressed brick, slate roof, hardwood, stained glass, mantels, grates, furnace, gas, plumbing, etc.; cost $12,000. For Walter J. Freiberg, a residence; materials: pressed brick, slate roof, wood mantels, grates, furnace, stained glass, gas, plumbing, etc.; cost $18,000. For Hon. Charles Fleischman, a residence; materials: pressed brick, slate roof, grates, mantels, furnace, stained glass, etc.; cost $12,000.

Architect G. W. Drach: For Albert H. Chatfield, a residence; materials: pressed brick, slate roof, hardwood, mantels, grates, furnaces, stained glass, etc.; cost $18,000. For Mrs. M. Y. Schmidlapp, a residence; materials: pressed brick, stone, slate roof, stained glass, furnace, gas, plumbing, hardwood, etc.; cost $12,000.

Architect A. O. Elzner: For Mr. N. Plant, a residence; materials: brick, stone, hardwood, furnaces, mantels, grates, stained glass, etc.; cost $15,000. For the Cincinnati Jewish Club, a clubhouse; materials: pressed brick, slate roof, stained glass, furnaces, grates, frescoing, hardwood finish, mantels, etc.; cost $75,000. For Mr. Fenton Lawson, a residence; materials: brick, slate roof, furnace, hardwood, mantels, grates, blinds, stained glass, etc.; cost $8,000. For Mrs. Lauretta B. Gibson, a store; materials: pressed brick, steam heat, tin roof, freight elevators, gas, plumbing, etc.; cost $12,000.

Architects Des Jardins & Hayward: For Louis Voight, a warehouse, 40 by 90 feet and four stories high; materials: pressed brick, stone trimmings, tin roof, steam heat, elevator, gas, plumbing, etc.; cost $15,000. Flat for George Stribley, Walnut Hill, Cincinnati; materials: pressed brick, tin roof, mantels, grates, gas, plumbing, etc.; cost $20,000. Alterations and addition to a house for Dr. A. W. Johnstone, care Dr. T. A. Reamy. Remodeling into a hospital. The contract will probably run to $10,000. Residence for A. E. Heinsheimer, attorney at law; materials: frame, slate roof, furnace, mantels, grates, stained glass, etc.; cost $5,000.

George W. Rapp and William Martin Aiken have formed a partnership. THE INLAND ARCHITECT never loses an opportunity to wish one well, so "here's to your health, gentlemen, and may you live long and prosper."

Cleveland, Ohio.—Architect J. Daniels: For United States Baking Company, four-story bakery block, brick, 47 by 96 feet, John Gill & Co., contractors; cost $36,500. For Merchants Banking and Storage Company, three storage warehouses, brick, 80 by 19 feet; cost $6,000.

Architect J. N. Richardson: For Masonic Association Temple, six stories stone, 80 by 82 feet, S. C. Kane, contractor; cost $4,500.

Architect F. Felkel: For Van Wagoner & Williams, two-story foundry, brick, 110 by 200 feet, D. & G. Griese, contractors; cost $24,000. For same, two-story factory, brick, 40 by 90 feet; cost $8,000.

Architect C. F. Schweinfurth: For Ursuline Convent, two-and-a-half stories, 96 by 187 feet, brick, Grant & Richardson, contractors; cost $103,000.

Architects Coburn & Barnum: For Dr. D. H. Beckwith, two-story drug store, 34 by 60 feet; cost $5,200. For Charles F. Olney, art gallery, brick, 32 by 64 feet; cost $20,000. For E. M. Stover, two two-story brick residences, 36 by 23 feet and 42 by 45 feet; cost $8,000.

Contractor J. M. Waterson: For Burtes Patterson Sargent Paint Company, four-story paint works, brick; cost $12,000.

Architect J. N. Richardson: For Woodland Avenue Street Railway Company, electric power house, brick, 92 by 152 feet; cost $35,000.

Architect J. W. Russell: For Newton M. Anderson, two-story dwelling, frame, 35 by 44 feet; cost $5,000.

Architect A. Milmeler: For Aurora Vapor Stove Company, two-story manufacturing building, brick, 50 by 200 feet and 100 by 50 feet; cost $10,000.

Architect W. W. Sabin: For Miles Park Presbyterian Church Association, school, 58 by 75 feet; cost $6,700.

Detroit, Mich.—Architect W. B. Stratton: For Sylvan Lake Improvement Company, two and one-half story frame hotel on the lake near Pontiac, Michigan; projected; cost $10,000.

Architect R. E. Roseman: For Joseph Porrein, three-story brick stores and flats, on Detroit avenue; projected; cost $20,000.

Architects Rogers & McFarlane: For T. H. Newburg, remodeling three-story brick residence, 28 by 30 feet; cost $15,000. For Hugh McMillan, three-story double brick residence; cost $30,000. For Don M. Dickinson, remodeling three-story brick residence, 32 by 23 feet.

Architects John Scott & Co.: For Detroit Fire Department, two-story brick engine house, 40 by 70 feet; cost $12,500.

Architects M. L. Smith & Son: For C. H. Cowler, two and one-half story brick residence; cost $12,000.

Architects J. L. Gearing & Son: For Central Methodist Episcopal Church, enlarging chapel; cost $19,000.

Architect E. C. Van Leyen: For Mashen Flush, two-story frame stable.

Architect Peter Dederich: For J. Kengel, four-story brick carriage manufactory, 36 by 65 feet; cost $12,000. For Henry Andries, two-story brick store and residence; cost $7,500.

Architect Gordon W. Lloyd: For SS. Peter and Paul Church, remodeling. For D. M. Terry & Co., addition to warehouse; cost $6,500. For Elmwood Cemetery, brick barn and keeper's house; cost $5,000.

Architects A. C. Verney & Co.: For Charles Keinicke, Jr., six three-story brick residences, coveriug 108 by 60 feet; cost $22,000.

Architects John Schuman & Co.: For St. Albertus School, three-story brick schoolhouse; cost $38,000.

Architect Peter Dederichs, Jr.: For St. Mary's Church, a granite cathedral, for Richmond, Virginia; cost $150,000; projected. For St. Gertrude Church, brick church at Santa Cruise; cost $10,000; projected. For St. Peter's Church, a brick and stone church at Ft. Wayne, Indiana; projected.

Architects A. E. Walshe & Son: For Wilson & Forley, two and one-half story pressed brick residence; cost $10,000; projected.

Architects Spier & Rohens: For Michigan Central Railway, passenger engine station, at Niagara Falls; cost $8,000.

Architect G. W. Myers: For Alice G. Phelps, two-story briek residence; cost $5,500. For E. A. Davis, two-story frame residence; cost $5,000.

Architect Henry Englebert: For Scrvite Brothers, a brick and stone eathedral for the monastery of the brothers at Chicago, on Jackson boulevard near Fortieth street; cost $125,000. Projected.

Architect Edward C. Van Leyer has removed his offices from 24 Hodges building to more commodious quarters at 36 Pennsylvania Bank building, West Fort street.

Louisville, Ky.—Architects Mowbray & Bohne report the following: Storehouse for Mrs. Emelia Bretzfelder, on Market between Fifth and Sixth streets; to cost $20,000; pressed brick front, stone trimming, four stories; asphalt roof, slow burning construction, elevators, size of building 40 by 120 feet. Residence for Mr. J. B. Browning, Third and B streets; to cost $7,000; pressed brick front, stone trimming, slate roof; two-and-a-half stories, size 28 by 45 feet, heated with furnace; stable, to cost $1,500; frame and metal roof. Residence for Mr. C. B. Castner, on Park avenue; to cost $8,000; slate roof, two and a half stories, size 35 by 55 feet, pressed brick, stone trimming, heated with furnace. Residence for Mr. S. C. Jones, on St. James court; to cost $5,000; slate roof, two and a half stories; pressed brick and stone, size 28 by 45 feet. Bouls market house, Jefferson near Preston street; alterations and addition of ball rooms, lodge room and bar; to cost $4,500. Residence for Mr. Gus Bruner, on Floyd street near Oak; brick and shingles, two and a half stories; cost $3,500, size 25 by 30 feet. Residence for Mr. T. W. Boden, Edwards and Hepburn avenues; cost $3,000, frame two stories, size 29 by 35 feet. Alteration and addition to residence for Mr. E. T. Pfingst, on Breck near Third street; cost $4,500, house when completed making two dwellings. Residence for Mr. W. F. German, Edward and Hepburn avenues, to be frame, two stories; $3,500; size 30 by 40 feet. Residence for Mrs. Sarah Fox, on Floyd street near Oak; to cost $3,500; brick and shingles, two stories, size 25 by 30 feet.

Architects Drach & Thomas: For National Building and Loan Company eleven dwellings; to cost $72,000. For Charles Meudel, residence; cost $7,200. For R. A. Basson, residence; to cost $6,500. For J. P. Field, residence; to cost $6,100. For C. P. Vance, residence; cost $3,000. For Jameson & Hutchinson, remodeling store; cost $3,500. For American Tobacco Company, warehouse; cost $7,600. For Louisville school board, schoolhouse; cost $18,000. For same, schoolhouse, addition; cost $3,500.

Rochester, N. Y.—Architects Jay Fay and O. W. Dryer are preparing plans for: stone and frame residence, to be built on East Main street, for C. J. Kallush; to cost $10,000. Colonial residence for Edmund Wetmore, at Glen Cove, Long Island; cost $10,000. Frame house, on Rutger street for Frank C. Walker; cost $6,500. Dormitory building for Genesee and Wesley seminary at Lima, New York, three-story brick, 68 by 130 feet; cost $30,000. Double house for M. Samuels, on Charlotte street; to cost $5,500. Faetory building for E. Grimble, three stories high; cost $5,500. Baptist church, at Attica, New York, material: brick; cost $8,000.

Architects Otis & Crandall: A six-story faetory building for the Eastman Kodak Company, corner Vogl and State streets, A. Fredericks & Son are the mason contractors; T. Finucane, the carpenter; the building is to be of brick with stone trimmings; cost about $60,000.

Architect William C. Walker is preparing plans for: Office and Gate Lodge Riverside Cemetery, preserving vault for same, stable for same; station on electric railroad for same, all to be built of stone. Block of four stores and eighteen apartments on Central avenue for M. Raleigh Farrar; cost $20,000. Block on State street, three stories, twelve apartments; cost $16,000. Residence on Lake avenue for Henry Hanson, cost $7,000. Residence on Granger place for James Vick; cost $9,000. Residence on Lake avenue for Hon. Charles A. Baker. Block of flats on Phelps avenue, cost $10,000. Dwellings on Frost avenue, Church Walk, Meigs street, Rochester, New York. Dwelling house, at Albion, New York, for Mr. John Bordwell.



RESIDENCE OF A. OFFNER, AVONDALE, CINCINNATI, OHIO.

A. O. Elzner, Architect.

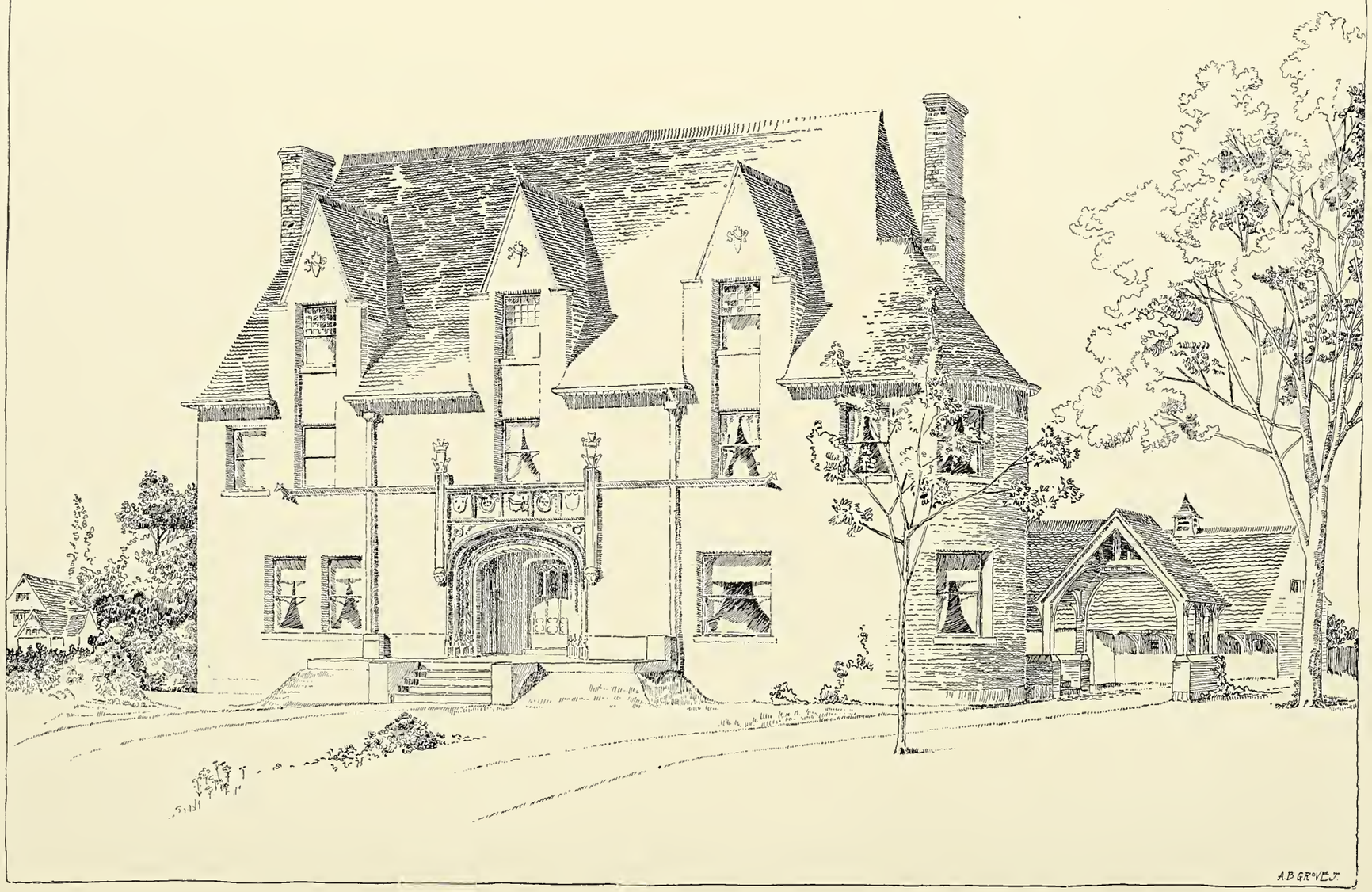


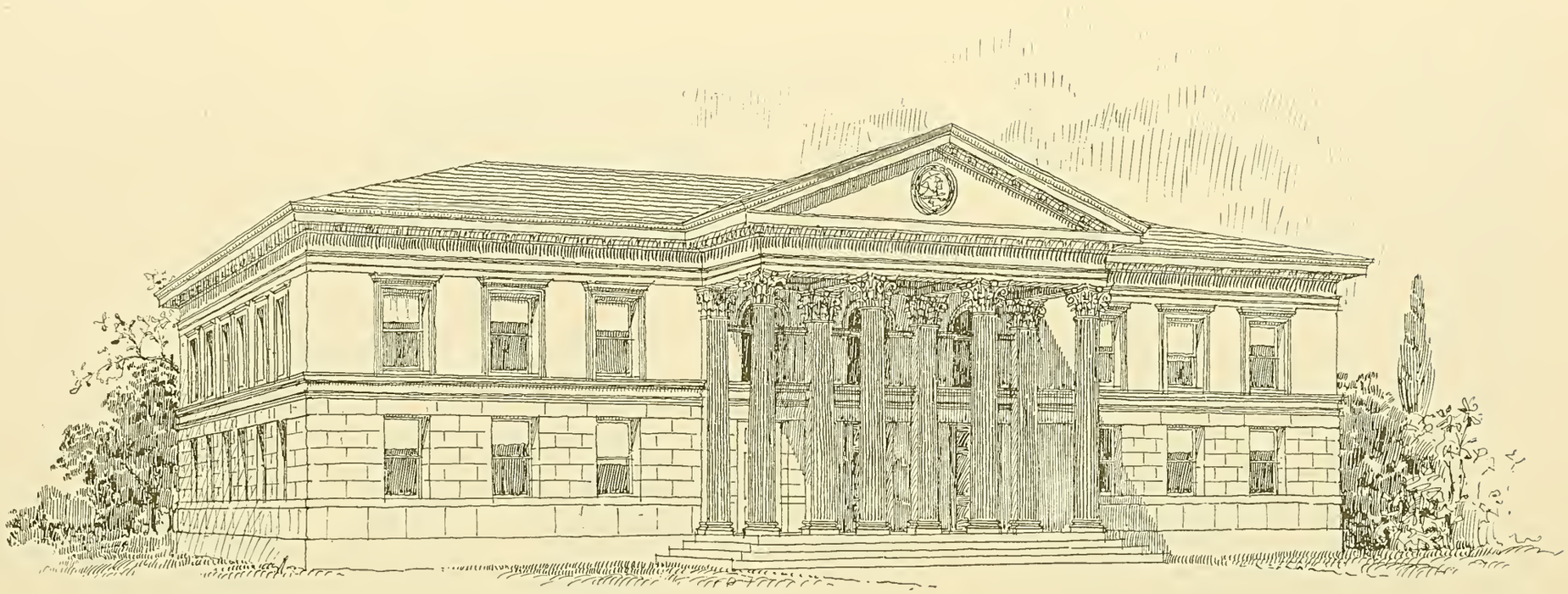
Inland Architect Press.

RESIDENCE FOR A. W. SULLIVAN, CHICAGO.

H. H. Sprague, Architect.

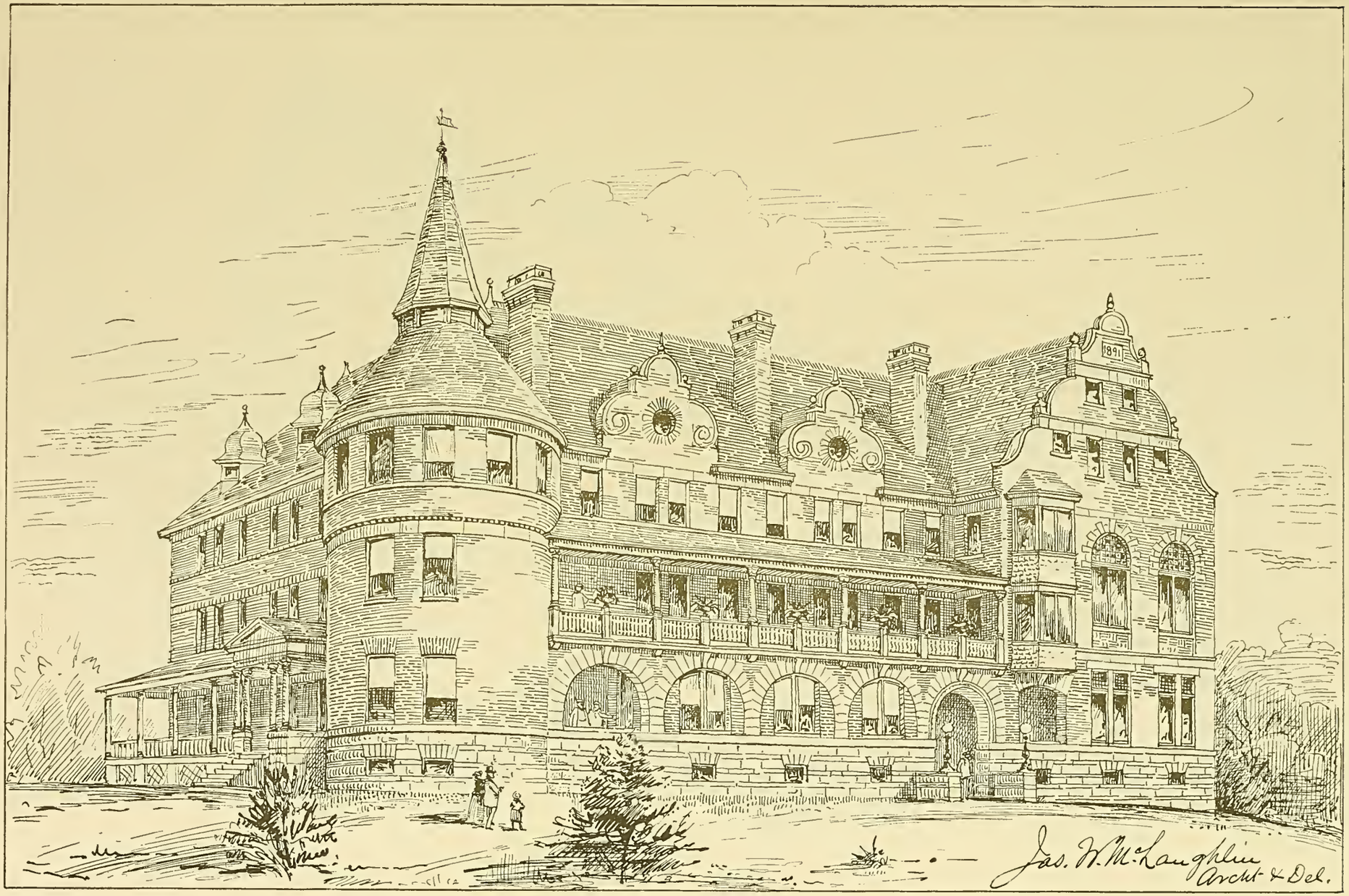
A SAINT LOUIS RESIDENCE
GRABLE & WEBER ARCH'TS
ST LOUIS MO





NEBRASKA STATE BUILDING, WORLD'S COLUMBIAN EXPOSITION, CHICAGO.

HENRY VOSS, ARCHITECT, OMAHA, NEBRASKA.



GERMAN HOME FOR OLD PEOPLE, CINCINNATI, OHIO

JAS. W. MCLAUGHLIN, ARCHITECT.



NESTER BLOCK, MARQUETTE, MICHIGAN.

CHARLTON & GILBERT, ARCHITECTS.



RESIDENCE FOR S. M. NAVE, ST. JOSEPH, MISSOURI.

ECKEL & MANN, ARCHITECTS.

BLOCK OF FLATS · FOR C·W·CROUCH · ESQ·
BLOCK & BARNES · ARCHITECTS ·
ROCHESTER · N·Y·

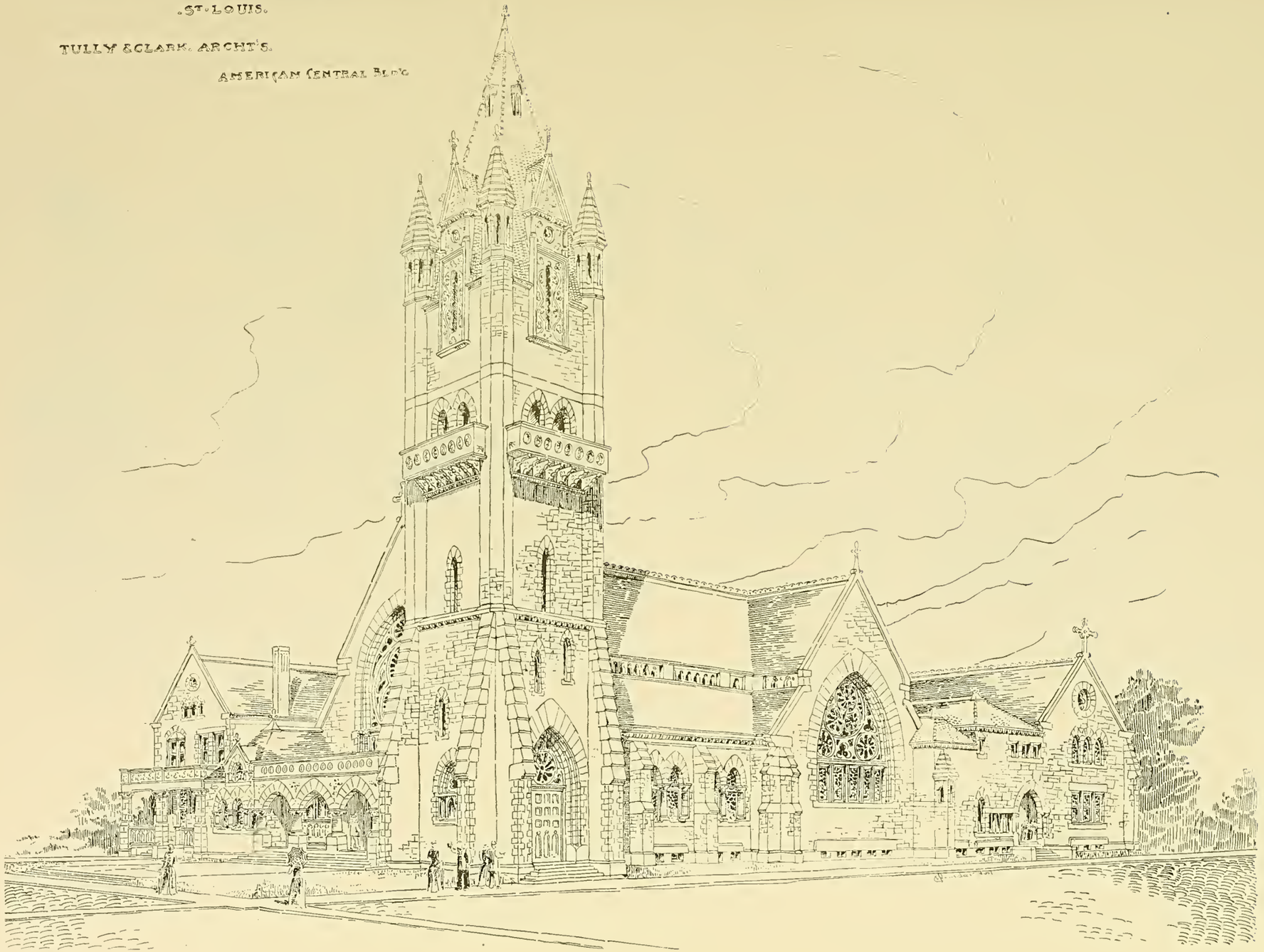


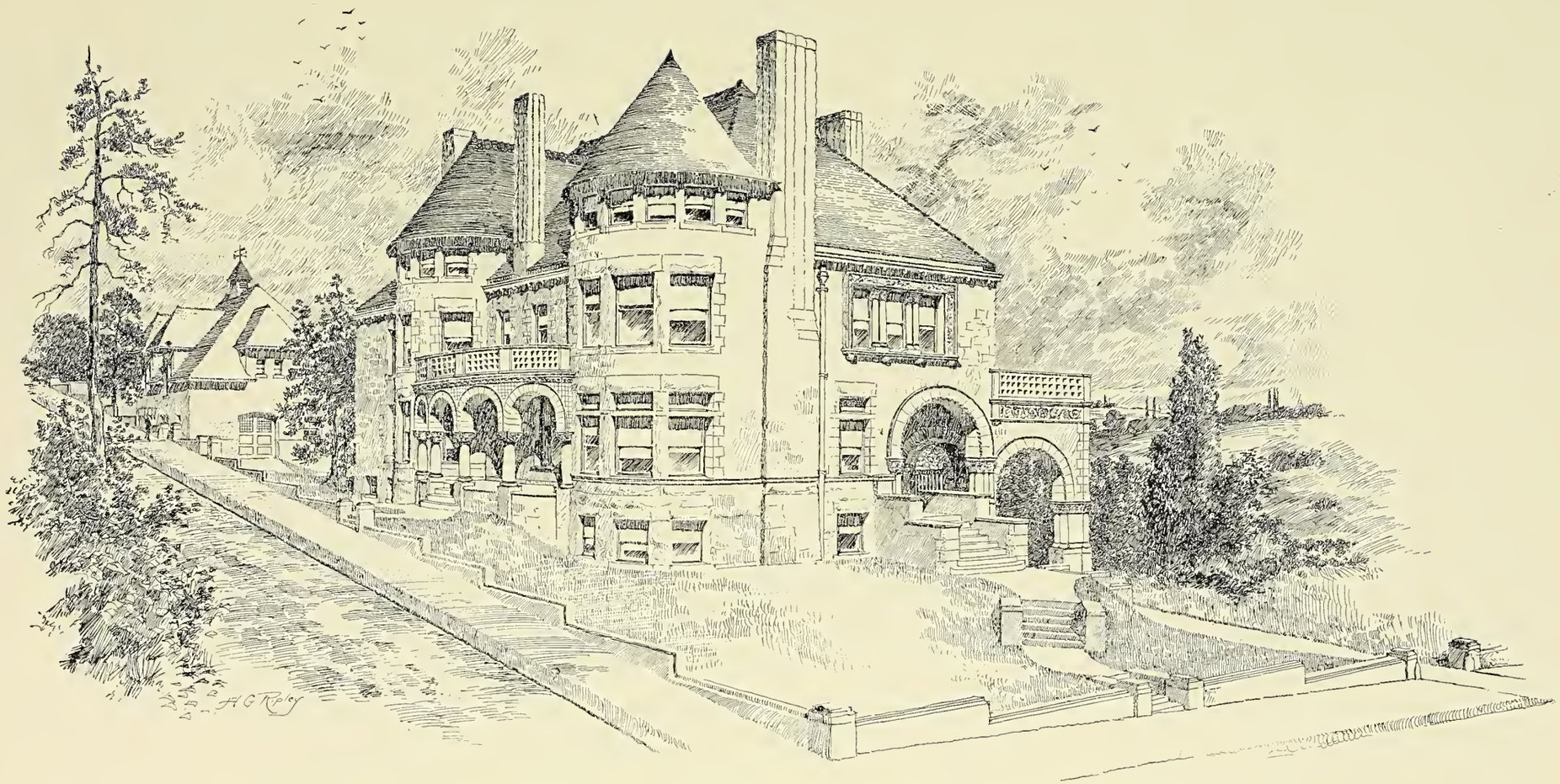
ST. PETER'S CHURCH AND PARISH BUILDINGS.

ST. LOUIS.

TULLY & CLARK, ARCH'TS.

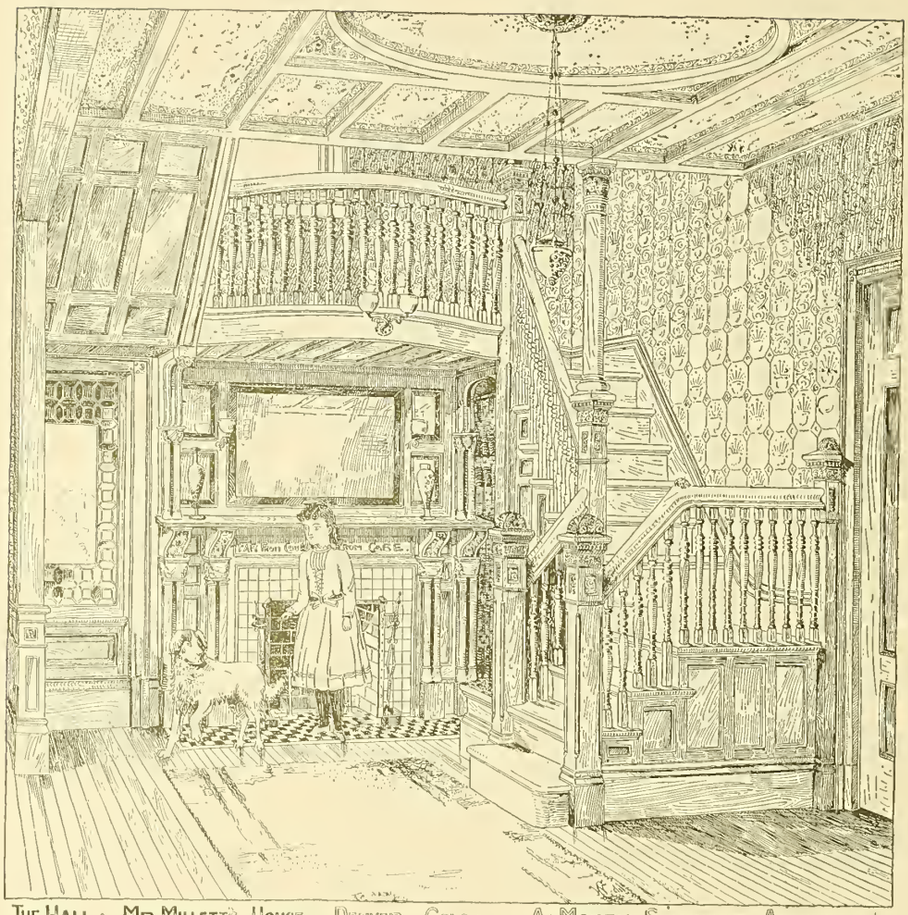
AMERICAN CENTRAL BL'D'G



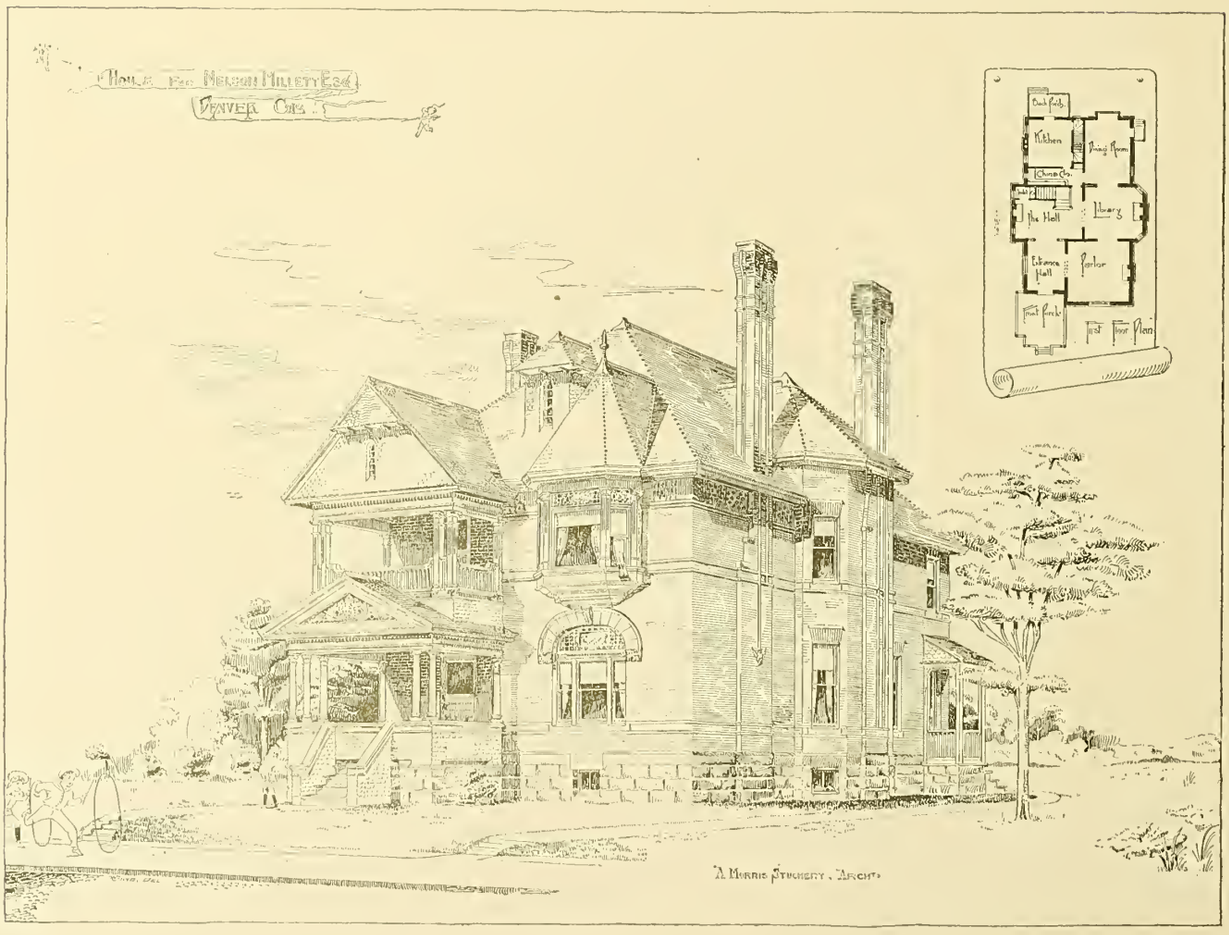


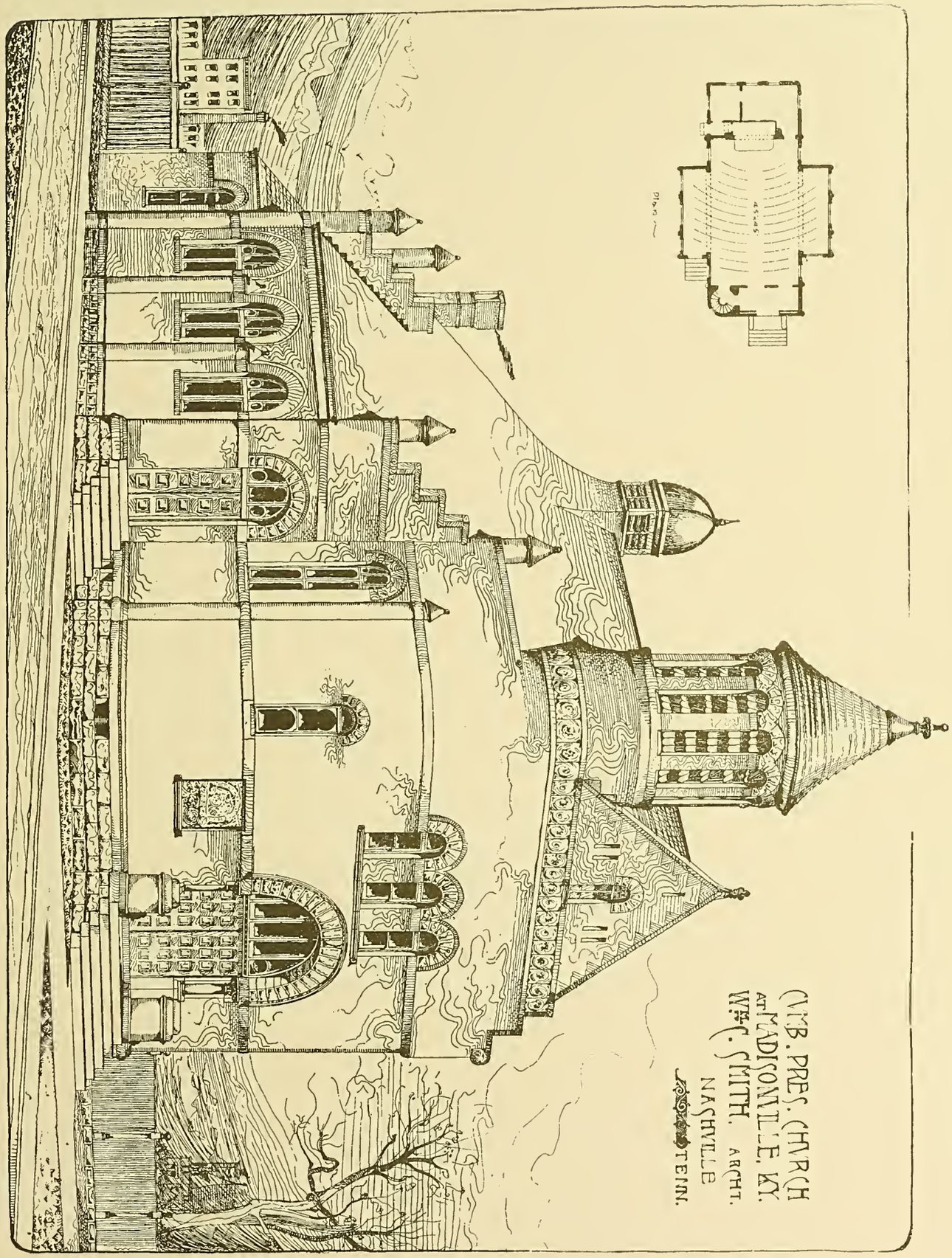
RESIDENCE FOR T. C. POWER, HELENA, MONTANA.

WILLETT & PASHLEY, ARCHITECTS, CHICAGO.



THE HALL: MR MILLETT'S HOUSE, DENVER, COLO: A: MORRIS STUCKERT, ARCHITECT:



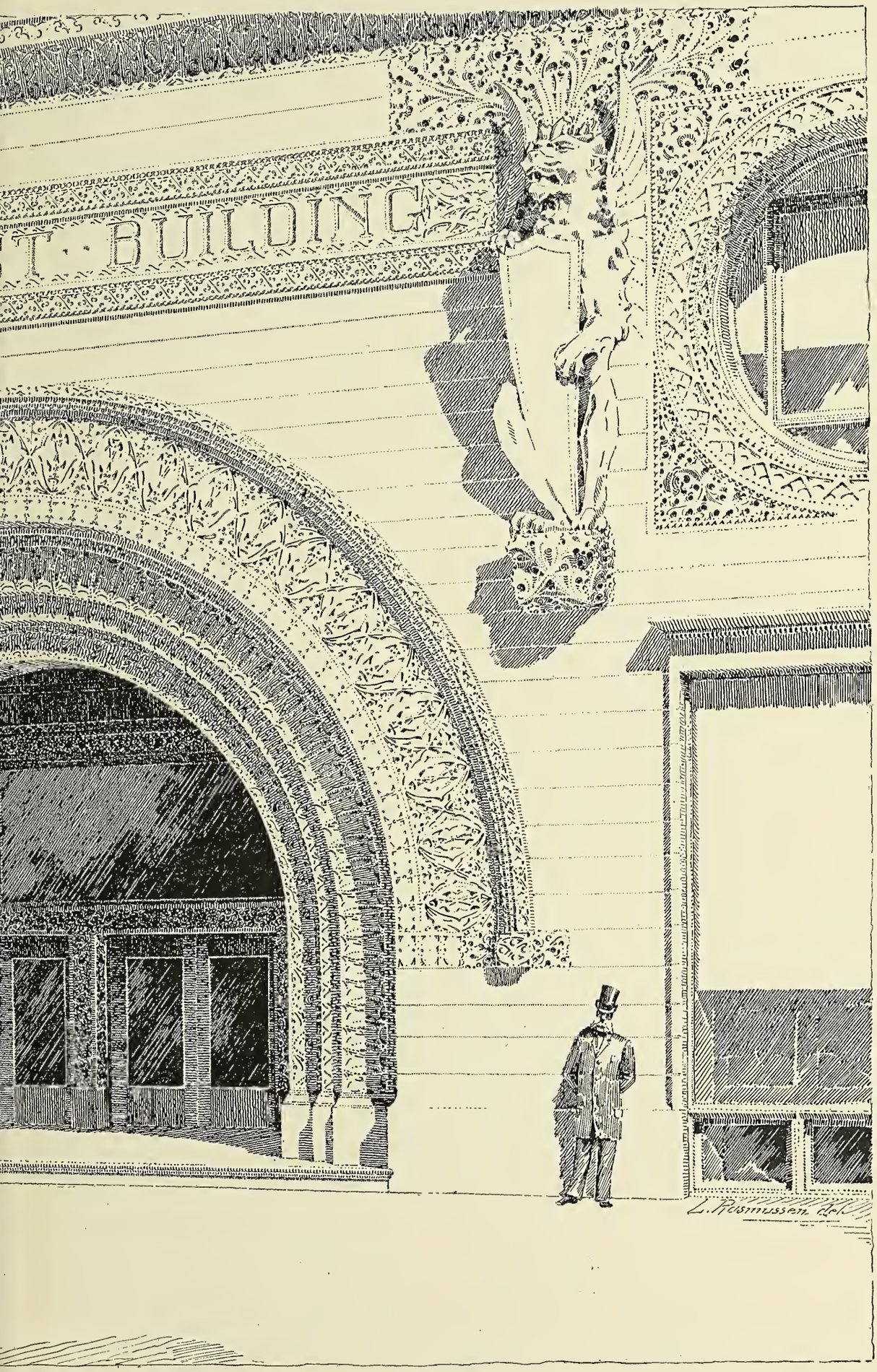


CUMB. PRES. CHURCH
AT MADISONVILLE, KY.
W.T. SMITH, ARCHT.
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MAIN ENTRANCE.

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UNION TRUST BLDG.

ST. LOUIS, MO.



Main Entrance. Union Trust Bldg.

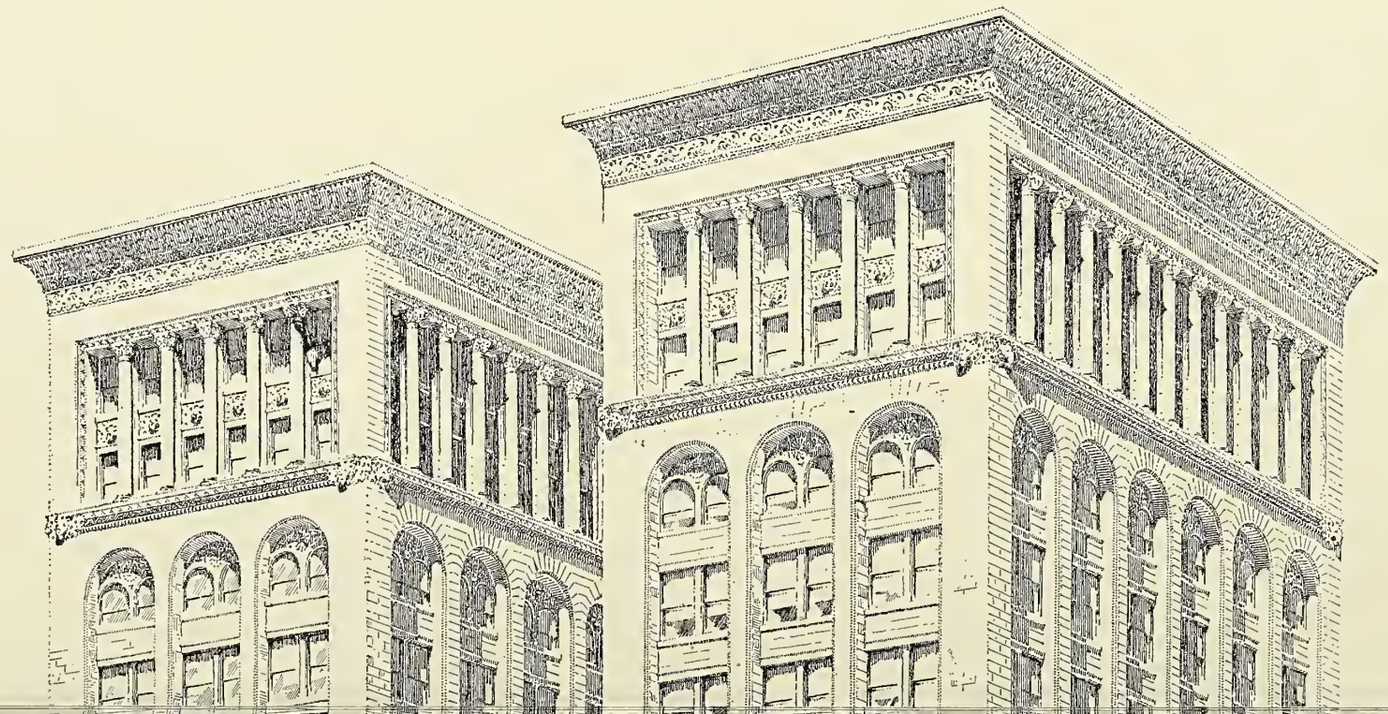
Adler and Sullivan, Chicago.
Chas. K. Ramsey, St. Louis. Associated Architects.

St. Louis, Mo.

THE UNION TRUST BUILDING.

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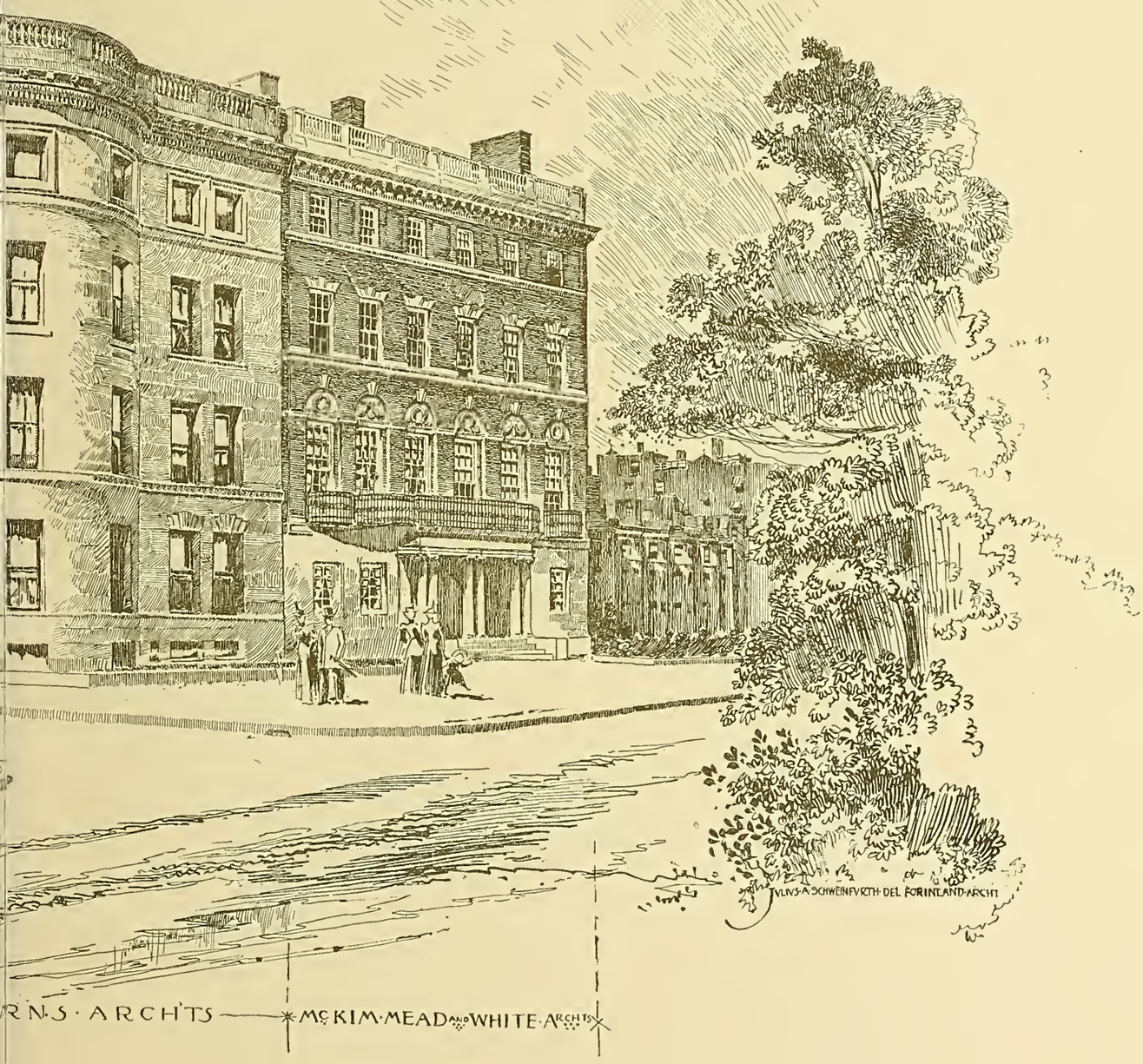
ADLR. AND SULLIVAN CHICAGO.
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TWO·HOUSES·IN·CHARLESGATE·E·
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